

UNITED STATES DISTRICT COURT

DISTRICT OF MAINE

PACKGEN,

CIVIL ACTION

Plaintiff

Docket No: 2:12-cv-80-JAW

-versus-

Volume I

BERRY PLASTICS CORPORATION, et al.,

Defendants

Transcript of Proceedings

Pursuant to notice, the above-entitled matter came on for **Hearing on Motion** held before **THE HONORABLE JOHN A. WOODCOCK, JR.**, United States District Chief Judge, in the United States District Court, Edward T. Gignoux Courthouse, 156 Federal Street, Portland, Maine on the 27th day of February, 2014 at 9:00 a.m. as follows:

Appearances:

For the Plaintiff: Kurt E. Olafsen, Esquire

For the Defendants: Phillip S. Bixby, Esquire
Jonathan M. Dunitz, Esquire

Dennis R. Ford
Official Court Reporter

(Prepared from manual stenography and
computer aided transcription)

<u>Witness</u>	<u>I N D E X</u>			
	<u>Direct</u>	<u>Cross</u>	<u>Redirect</u>	<u>Recross</u>
Mark G. Filler	9	79	188	194
Charles D. Cowan	197	219		

<u>Number</u>	<u>E X H I B I T S</u>	<u>Description</u>	<u>Page/Admit</u>
1A		Damages Model	18,117,137/6
2		Sales Data	6/6
3		Spreadsheet	194/6
4		Discharge Data	24/6
5		Overhead Calculations	27/6
6		Spreadsheet	27/6
7		Worksheet	27/6
8A		Summary	40/6
9		Discount Model	37/6
10A		Pratt's Stats	40/6
13A		Economic Damages	57,62,104,150/6
14		Simulation Stats	6/6
15		Simulation Stats	6/6
16A		Simulation Stats	6/6
17		Spreadsheet	57,176,243/6
18		Spreadsheet	61/6
19A		Cougar Sales	75,152,173,192,195/6
20		Spreadsheet	72/6
21		Overhead Calculations	73/6
22		Filler CV	6/6

<u>Berry</u>	<u>Description</u>	<u>Page/Admit</u>
1	Witness Designation/Ex 1-24	120,128/121
2	Figures	191/143
3	Figures	184/184
4	Figures	187/187
5	Graph	187/187

<u>Sub Exhibits</u>	<u>Description</u>	<u>Page</u>
4	Document	121
11	Document	129
5	Document	131
13	Document	150
17	Document	162
19	Document	173

1 (Open court. Parties present).

2 THE COURT: Good morning, counsel.

3 MR. OLAFSEN: Good morning.

4 MR. DUNITZ: Good morning.

5 THE COURT: This is the matter of Packgen
6 versus Berry Plastics. Would counsel please enter
7 their appearances.

8 MR. BIXBY: Bill Bixby -- I'm sorry, go ahead,
9 Kurt.

10 MR. OLAFSEN: Kurt Olafsen for the plaintiff.

11 MR. DUNITZ: Jonathan Dunitz for the
12 defendant.

13 MR. BIXBY: And Phillip Bixby for the
14 defendant.

15 THE COURT: How do you plan to proceed,
16 gentlemen?

17 MR. DUNITZ: Mr. Olafsen is going to put Mr.
18 Filler on the stand first, as we discussed at the
19 conference. We do have one issue we'd like to raise
20 with the Court.

21 MR. BIXBY: Your Honor, one of the experts
22 here, Nancy Fannon, her son has had a tragedy a few
23 days ago with regard to the loss of someone very close
24 to him. He may or may not try to reach out to her
25 today for funeral arrangements, that sort of thing.

1 The reason I mention that is because I have her phone
2 here with me.

3 THE COURT: That's fine.

4 MR. BIXBY: I prefer to give it to her so she
5 can see if the message comes in.

6 THE COURT: That's fine.

7 MR. BIXBY: I will do that then. Thank you.

8 MR. OLAFSEN: Your Honor, as we understand it,
9 based on the conference held, the Court would like the
10 plaintiff to call Mr. Filler and have him testify
11 largely in narrative form as to what he did, so that is
12 the plan and then the defendant's will present their
13 expert witnesses.

14 Two preliminary things. Number one, Your Honor,
15 the reason that I am listing to the left and holding my
16 left arm awkwardly, I broke it four weeks ago. It's
17 doing much better.

18 THE COURT: Are you right-handed?

19 MR. OLAFSEN: I am right-handed or we wouldn't
20 be here today, I don't think, but I just wanted to
21 alert the Court to that. If I occasionally wince or
22 grimace, it's because I've turned the wrong way or
23 extended too far left. It's not because of anything
24 that's going on here.

25 THE COURT: I won't take it personally.

1 MR. OLAFSEN: And unlike previously, it passes
2 very quickly so I don't think it will really interrupt
3 things. Secondly, I may be a little slow as a one
4 armed lawyer assembling documents sometimes, but other
5 than that, I don't think it will have an effect me.

6 THE COURT: Are you in a cast?

7 MR. OLAFSEN: No they can't cast it. I had a
8 sling up to a week ago and it is actually more
9 comfortable now just to hold it down, but I cannot move
10 from the elbow up for another two weeks until the bone
11 heals.

12 THE COURT: You're not blaming the other party
13 in anyway; are you?

14 MR. OLAFSEN: No, I'm not. It was my own
15 foolishness, sliding with my grandkids and hotdogging,
16 I have to admit, when I shouldn't have been, which my
17 wife has reminded me at least 50 times since then.

18 THE COURT: Okay.

19 MR. OLAFSEN: Secondly, a word on the
20 exhibits, Your Honor, the expert witness designations
21 were filed by the defendants with the Court and I
22 thought the least confusing way to do it today is to
23 use those exhibits marked in the same way so they will
24 stay just plain exhibits rather than plaintiff's
25 exhibits.

1 THE COURT: All right.

2 MR. OLAFSEN: And the numbers will correlate
3 to the designation in case anyone wants to look back to
4 the designation and some of them will have an A or 1A,
5 for example. That means since the designation, there's
6 been some changes.

7 THE COURT: Okay, fine.

8 MR. OLAFSEN: So all the As are substituted
9 exhibits. Ones without As are from the original
10 designation.

11 THE COURT: Any objection to any of the
12 exhibits?

13 MR. DUNITZ: No, Your Honor.

14 THE COURT: All right. So each of the
15 exhibits, that's 1A, 2, 3, 4, 5, 6, 7, 8A, 9, 10A --

16 MR. OLAFSEN: It jumps to 13A, Your Honor.

17 THE COURT: 13A.

18 MR. OLAFSEN: 11 and 12 were from an
19 alternative opinion that's no longer in the case.

20 THE COURT: Okay, 14, 15, 17, 18, 19A, 20, 21,
21 22 are all admitted.

22 MR. OLAFSEN: One thing, Your Honor, I don't
23 think I heard you say 16A.

24 THE COURT: I may have skipped it.

25 MR. OLAFSEN: It has a sticker, I think, on

1 the top left.

2 THE COURT: Okay. 16A as well are all
3 admitted. Thank you.

4 MR. DUNITZ: Your Honor, we will also have
5 some additional exhibits as we proceed. They were
6 either exhibits that were Mr. Filler's opinion, but are
7 no longer his opinions and some that we used during
8 depositions.

9 THE COURT: Sure. No, I understand. All
10 right, are we ready to proceed?

11 MR. BIXBY: Your Honor, I have a couple of
12 things I want to say, if you're done.

13 MR. OLAFSEN: Sure.

14 MR. BIXBY: We talked about this prior to the
15 conference when we were planning this in terms of how
16 to proceed and it's my understanding, I just want to
17 make sure that Mr. Filler will go first, he will be
18 cross-examined and then the defense witness will stand
19 up and potentially be cross-examined.

20 The only thing I'm concerned about, not having
21 been through something quite like this before, I'd hate
22 to be in a position where we are backed up time wise.
23 I don't know how long Mr. Filler is going to take and I
24 don't know if Kurt has a sense for how long the
25 scenario or the direct is going to take, but we did

1 estimate -- we were asked to provide the Court with
2 estimates as to how long the hearing itself would take
3 and I believe the range was be between 4 and 7 hours.

4 THE COURT: Right.

5 MR. BIXBY: I want to make sure we are still
6 on target for that and that the defendants be given
7 sort of equal time today rather than be boxed into
8 something at 2 o'clock and have to run through one of
9 our experts from Texas.

10 So if we need to talk about that now, I'll be
11 happy to, but if we don't and Kurt doesn't think there
12 would be an issue with a four-hour direct, then I would
13 be happy to hear that.

14 MR. OLAFSEN: No, I anticipate a four-hour
15 direct. I don't think that would occur and certainly
16 we do not object to having him go.

17 MR. BIXBY: I guess considering we are
18 beginning roughly at 9:00, 9:15, would you estimate
19 that we will be at least beginning cross around lunch
20 time at the latest?

21 MR. OLAFSEN: Yes, I would.

22 MR. BIXBY: The other question I have for the
23 Court, Your Honor, should we talk about briefing and
24 scheduling after this hearing, now or at the end of the
25 hearing?

1 THE COURT: Why don't we talk about it after
2 the hearing.

3 MR. BIXBY: Okay. I have nothing further.

4 THE COURT: Why don't we proceed.

5 MR. OLAFSEN: Thank you, Your Honor. The
6 plaintiff calls Mark Filler. Mark, you can take the
7 originals up.

8 THE CLERK: Please raise your right hand. Do
9 you solemnly swear that the testimony you will give in
10 the cause now in hearing will be the truth, the whole
11 truth, and nothing but the truth, so help you God?

12 THE WITNESS: I do.

13 THE CLERK: Please be seated. Please state
14 your name and spell your last name for the record.

15 | THE WITNESS: Mark G. Filler, F-I-L-L-E-R.

16 THE COURT: You may proceed.

17 MR. OLAFSEN: Thank you, Your Honor.

18 DIRECT EXAMINATION

19 BY MR. OLAFSEN:

20 Q. Good morning, Mr. Filler. Would you introduce
21 yourself to the Court. Please.

22 A. Hi, I'm Mark G. Filler.

23 Q. Thank you. Mr. Filler, what were you asked to do
24 in this case?

25 A. I was asked to compute the present value of

1 Packgen's lost profits.

2 Q. And how do you define lost profits for purposes
3 of this case?

4 A. Sales not made minus costs avoided.

5 Q. And do these lost profits fall into any
6 particular categories?

7 A. Well, there's four methods to compute lost
8 profits.

9 Q. Excuse me, I'm just trying to get into the fact
10 that there are two different types or two different
11 customers of which there are lost profits.

12 A. Oh, sorry.

13 Q. Just so the Court can orient itself to what we
14 are doing.

15 A. Sorry. Yes, lost profits derived from the loss
16 of the CRI or Criterion customer and lost profits from
17 failure to make sales to 37 refineries.

18 Q. We will talk about those then separately.

19 MR. OLAFSEN: But first, Your Honor, I would
20 like to point out that Mr. Filler's CV has been put in
21 as Exhibit 22 and I understand from the conference that
22 the Court does not want us to spend time on the
23 qualifications and I will move on, unless you have some
24 questions about qualifications.

25 THE COURT: No, that's fine. Is there an

1 issue as to qualifications here?

2 MR. DUNITZ: We do have issue as to
3 qualifications regarding his ability to offer this
4 opinion and I have prepared some questions about that.

5 THE COURT: Do we want to -- and I have the
6 curriculum vitae before me. Do we want to allow him to
7 explore the issue of qualifications at this time? Do
8 you want to set some sort of a -- you're free to set
9 some groundwork for it if you'd like to do so.

10 MR. OLAFSEN: I think it makes more sense,
11 would be more efficient for Mr. Filler first to present
12 his testimony, then Mr. Dunitz can zero in on exactly
13 what he thinks the qualifications issue is and then we
14 can respond to that.

15 THE COURT: That's fine. However you want to
16 do it is fine.

17 BY MR. OLAFSEN:

18 Q. Mr. Filler, how did you go about the task of
19 determining lost profits in this case?

20 A. Well, I did a number of things. I gathered
21 financial information, including annual review
22 financial statements from 2004 through 2012. I got tax
23 returns for the same period. I had monthly internally
24 prepared financial statements from January of 2004 up
25 through the end of 2010. I made three trips to Auburn,

1 to the manufacturing facility. I spent about 12 hours
2 up there. Part of that time I was down on the
3 manufacturing floor watching them make the product.

4 I spent another 4 or 5 hours, 6 hours with Mr.
5 Lapoint having various discussions about many topics.
6 I spent the rest of the time with the bookkeeper
7 reconciling Criterion sales back to the general ledger.
8 I spent time with the bookkeeper normalizing the six
9 months of factory overhead and labor and a selling
10 journal, administrative expenses in a six-month period,
11 which is the six months of sales that took place with
12 Criterion from October of '07 through March of '08.

13 I did some research on catalyst. I went to
14 Packgen's website and viewed a video of how the
15 containers were used to move the catalyst and that's
16 all that comes to mind. I'm sure there are other
17 things that I did that will come out as we go through
18 my exhibits.

19 Q. Do you recall how many times you met with Mr.
20 Lapoint, the president of Packgen?

21 A. Well, I met with him three times when I was up
22 there and probably at least two more times at his
23 attorney's office.

24 Q. Did you also have telephone conversations with
25 him?

1 A. I did.

2 Q. What sorts of things did you discuss with Mr.
3 Lapoint?

4 A. Well, one of the main reasons that I went up to
5 Auburn was my concern about the capacity at the
6 manufacturing plant, did they have enough floor space,
7 did they have enough machinery, did they have enough
8 employees. If sales were really going to ramp up
9 considerably, was there room to expand, were they able
10 to get enough material for this project.

11 We talked about the competition, we talked
12 about the market, we talked about was there anything
13 going to happen in the future in terms of political
14 factors, economic factors, social factors, new
15 technology, environmental issues, legal issues that
16 would prevent them from having the future that they
17 anticipated, and just general conversations about, you
18 know, what had happened, how things came about to where
19 sales to Criterion doubled, what were their
20 expectations as to the 37 refineries, what were they
21 doing about cost reduction, et cetera, et cetera.

22 Q. Did you review any professional resources as part
23 of your work?

24 A. Well, I read Mr. Berman's report. That's the --
25 he's an expert in catalyst.

1 Q. And did you consult any databases, professional
2 databases as part of coming up with your conclusions in
3 this case?

4 A. Well, I had a database of purchase and sale
5 transactions in the SIC code of this particular
6 industry that I used to develop, eventually, my
7 discount rate.

8 Q. Did you go about this task any differently than
9 you would have if this had not been involved in
10 litigation?

11 A. No, no. No, if this had been, you know, a
12 business interruption claim, you know, business
13 interruption claims don't last for more than a year,
14 but I used standard procedures.

15 Q. Do you recall approximately how many hours you
16 spent coming up with your opinions?

17 A. About a hundred hours.

18 Q. I'd like to focus first then on the Criterion
19 damages. Can you explain, first of all, what Criterion
20 is?

21 A. Criterion is a division of Shell Oil Company and
22 it makes at various facilities around the world fresh
23 catalyst that are used in the oil refining process.

24 Q. And were they a customer of Packgen?

25 A. Yes. Sales records indicate that Criterion

1 became a customer of Packgen approximately June of 2003
2 and were a steady customer up until April 7, 2008.

3 Q. And did you determine lost profits resulting from
4 loss of sales to Criterion?

5 A. Yes, I did.

6 Q. What methodology did you use to do that?

7 A. I used the sales projection method.

8 Q. And what's that method?

9 A. Well, there are four methods to compute lost
10 profits; the sales projection method, which is you
11 start at .0 and project outward sales would have been
12 but for the incident; second way is before and after
13 method where you have some past history, then there's
14 an incident and then sales and profits pick up after
15 the incident and the loss is the gap in-between;
16 there's the yardstick method where you compare the
17 subject company to some industry comparable in terms of
18 sales, costs and profits and estimate the loss based on
19 that comparable; and then there's the market model
20 where you figure out what the company's market share
21 was and extrapolate from that what the loss is going to
22 be.

23 Q. And you had considered all of these methods
24 before choosing the sales projection method?

25 A. Yes. I looked at, you know, thought about all of

1 them, you know, and chose the sales projection method.

2 Q. And why the sales projection method?

3 A. Well, with Criterion, there was a before, but
4 there was no after. We had no idea what the market
5 share was and there was no comparable business to
6 Packgen that one could get information about to
7 determine, you know, what their sales and profits were,
8 so by default, we came to the sales projection method.

9 Q. And is that an accepted methodology that damage
10 experts use?

11 A. Yes, it is.

12 Q. In choosing the sales projection method here, did
13 you rely on any projections or forecasts or on actual
14 sales to Criterion?

15 A. I relied on the actual sales to Criterion.

16 Q. Can you tell us for what period you relied on
17 sales to Criterion?

18 A. From the six months October of '07 to March of
19 2008, I used those six months.

20 Q. And why did you choose those six months?

21 A. Well, even though Criterion had been a customer
22 since June of 2003, the products that they were buying
23 had changed over time and sometime in 2006, they became
24 involved in the development of the product that they
25 started to buy in August of 2007.

1 They wanted, you know, things like kick
2 plates, they wanted a screw on top, they got involved
3 in the aluminum -- the aluminum wrap. They even sent
4 personnel up to Auburn to check on the manufacturing
5 facility and to satisfy themselves as to quality
6 control, so they were quite involved in this product.

7 There was some sales of it in August and
8 September and then starting in October of 2007, sales
9 to Criterion more than doubled and continued at that
10 pace for the six-month period. So it was a different
11 product of a very -- a modified product with a very
12 different sales history in those six months from the
13 prior years.

14 Q. There were also orders after that six month
15 period?

16 A. Yeah. The average monthly sales for the six
17 month period was 1,261 containers and the purchase
18 orders for April totaled 1,379 orders.

19 Q. And did those orders ultimately get canceled?

20 A. Yes. Those orders got canceled and therefore, I
21 didn't consider them in my sales projection.

22 Q. What's your understanding of why those orders
23 were canceled?

24 A. My understanding is that when the containers
25 failed, Criterion called Packgen and said, you know,

1 we're through.

2 Q. I'd like to ask some questions now about how you
3 actually applied the sales projection method to this
4 case and if you would take a look at Exhibit 1A.
5 Please explain what Exhibit 1A is.

6 A. 1A is my -- well, it's titled a deterministic
7 model for computing the lost -- the present value of
8 the lost profits resulting from the cancellation of or
9 the destruction of the customer relationship with
10 Criterion and what I started with is I took the
11 1,261 units a month that was the average, that we had
12 sold for the six months, and extrapolated from that to
13 12 months and then took it out for ten years. That's
14 the first line that says unit sales.

15 Q. So you took the six months and broke it down into
16 monthly sales?

17 A. Yes.

18 Q. What was the purpose of that?

19 A. I could have taken the six month sales,
20 multiplied it by two, which would give me a year's
21 sales, and then took that out. I took the six months,
22 divide it by six, multiply by 12, gets you to the same
23 place.

24 Q. You're saying this is for calculation purposes?

25 A. Yes.

1 Q. The next line on Exhibit 1A is selling prices.

2 Can you explain what the entries are there on that
3 line.

4 A. Yes. The selling price is \$196.86 and that was
5 the price for those six months. Some of the sales were
6 different by pennies, but that was the price, \$196.86.

7 THE COURT: Is that per unit?

8 A. Per unit.

9 BY MR. OLAFSEN:

10 Q. And that's the actual historical price?

11 A. Actual historical price times actual historical
12 unit sales.

13 Q. Why did you decide to use the historical price?

14 A. Well, there was talk of raising the price to
15 Criterion up through August of 2007. The highest price
16 had been a hundred dollars a unit. Then with this new
17 foil wrapped modified container, the price doubled to
18 \$200 -- to \$196.86 a unit and Packgen was -- told me
19 that they were just about to go to Criterion and ask to
20 raise the price again.

21 However, they were never able to produce any
22 supporting evidence that that had actually taken place.
23 There were no memos of phone conversations, there were
24 no e-mails, there were no letters, so without that
25 supporting documentation, I didn't use the prospective

1 price. I relied on the historical price.

2 Q. Next line on Exhibit 1A is material costs and the
3 next four lines are cost categories. Please explain
4 how you came up with the costs that are plugged into
5 Exhibit 1A.

6 A. All right. Packgen does not have what
7 accountants traditionally call a cost accounting system
8 so you can't go to -- you can't go to a cost
9 accounting system and find out for product X what are
10 the various costs. It's not available.

11 Q. Is that unusual for a small company not to have
12 an actual cost accounting system?

13 A. Not unusual at all. It's very usual for a
14 company with \$5 million in sales. It's quite usual.
15 There's no -- as a matter of fact, every manufacturer
16 that I've ever had anything to do with in Maine, either
17 as an auditor or tax preparer or evaluation analyst,
18 I've never seen a cost accounting system. These are
19 all small companies, 5, 10, \$15 million in sales. Very
20 usual to not have one.

21 Their general ledger was not detailed enough,
22 that is, they didn't have -- you know, if they have 25
23 products, the sales categories in the general ledger
24 didn't have 25 lines, it had three lines, and the same
25 thing for the costs, there weren't 25 lines for each of

1 the products, there were two lines or three lines.

2 All right, so you couldn't take units produced
3 and divide it into monthly costs to find out what the
4 average cost was because the general ledger was not set
5 up to provide that kind of information. If you were a
6 one product company, you can do that, but with a
7 multiproduct company like Packgen, the general ledger
8 was not detailed enough to develop average costs.

9 So I relied on what they relied on to
10 determine what their costs are and that is a standard
11 cost. What they do is they go down to the
12 manufacturing floor -- well, first, they have a piece
13 of software that produces a bill of materials for each
14 product that's tied into the general ledger. That bill
15 of materials tells you how many units of each material
16 item and what its cost is.

17 Then the next thing they do is down on the
18 factory floor, they -- well, to get that information
19 to the bill of materials, somebody has to go down to
20 the factory floor and measure and count, measure the
21 polypropylene material, count all of the screws,
22 widgets and clamps, et cetera, feed that into the bill
23 of materials software so now you get a printout.

24 Next thing you have to do is go down on the
25 floor and time the labor process, you know, how many

1 people, how long does it take. If it takes, you know,
2 four minutes to do this, three minutes to do that,
3 eight minutes to do this and you cost all that up and
4 then they collect all their freight bills and they take
5 an average of those freight bills and they plug that in
6 as well.

7 They have an Excel spreadsheet for each
8 product where they collect all of these costs and
9 they're constantly updating their manufacturing
10 processes, their manufacturing techniques and at
11 certain points during the year, they update what they
12 call their -- or what I call their standard cost
13 sheets.

14 Now, those standard cost sheets are computed
15 under ideal conditions. It's not -- it's not an
16 average. It's under the best conditions. This is what
17 it ought to take in terms of material and labor to make
18 this particular product, but we all know that when you
19 get down on the plant floor, machinery breaks down,
20 mistakes are made, some people are faster, some people
21 are slower, so there's always variability in the
22 manufacturing costs so we needed to take that into
23 account.

24 So using the --

25 Q. One thing before you move on, are standard costs

1 recognized in your professional as an accurate method
2 for determining costs of units that are being sold?

3 A. Sure. I mean there's actually no more accurate
4 way to determine what your standards are and I asked
5 well, how do you know when it's time to change your
6 standards and they say that's something we watch all
7 the time because we're always making improvements and
8 we're always updating our standard costs.

9 Q. And did you yourself do anything to verify the
10 standard costs that were given to you by Packgen?

11 A. Yes. One of the things that I did when I went up
12 and went down on the factory floor was, you know,
13 watched -- spent about an hour or so watching them
14 make containers and, you know, I went up with a
15 stopwatch and I watched them measure out and sew and
16 cut and I watched what the people were doing and I had
17 a stopwatch and I was timing it and I was able to
18 mentally tie all that back into the standard cost
19 sheets.

20 Q. Did you also look at any backup documents for
21 materials and labor?

22 A. Yes. I got a bill of materials for the Criterion
23 containers and I got the bill of materials for the
24 containers for the refineries. There's a difference.
25 The refinery containers are larger for spent catalyst

1 then they were for fresh catalyst for Criterion and I
2 got the bill of materials and I got backup invoices to
3 tie into the bill of materials.

4 I tied that up. I also looked at the payroll
5 records to verify what they use for the \$20 an hour for
6 labor costs, including fringe benefits. I was able to
7 reconcile that.

8 Q. After doing that work, were you confident that
9 the standard costs you were provided were accurate?

10 A. Yes.

11 Q. If you would turn to Exhibit 4, please.

12 A. Yes.

13 Q. Exhibit 4 are the standard cost sheets provided
14 to you by Packgen?

15 A. Yes.

16 Q. And can you describe, first of all, with respect
17 to materials what those sheets are showing.

18 A. Well, they start with the materials and they list
19 off in the bill of materials all of the items that go
20 into the making of an industrial bulk container, an
21 IBC, including, you know, the rope, the glue, the
22 straps, I mean, you know, the liner, et cetera, et
23 cetera, and then down below they include the labor,
24 they include the inbound freight and come up with the
25 total cost.

1 Q. How many standard cost sheets were you provided
2 by Packgen for this product they were selling to
3 Criterion?

4 A. I was provided two.

5 Q. And can you describe what those are.

6 A. I was -- one was a cost sheet from an earlier
7 period and -- the higher one was a cost sheet from an
8 earlier period, the lower cost was a standard cost
9 sheet from a later period reflecting the costs -- the
10 reduction in costs from new manufacturing processes.

11 Q. At the time of the incident, was the lower cost
12 in effect or the higher cost?

13 A. The lower cost was in effect.

14 Q. So during the six months, the cost had actually
15 gone down?

16 A. Yes.

17 Q. In your calculations on Exhibit 1A, did you use
18 the lower costs?

19 A. No, I wanted to account for the variability in
20 costs. Again, to repeat myself, the standard cost
21 sheet is an ideal cost and I wanted to account for
22 variability around that ideal cost and specifically, I
23 wanted to account for downward variability so I
24 averaged the higher cost and the lower cost.

25 Q. And that would affect both material cost, freight

1 and direct labor costs on 1A?

2 A. Yes.

3 Q. Do you have any understanding of what's happened
4 to Packgen's costs for this product since the product
5 failure in April of 2008?

6 A. I've been told that because of their continuous
7 improvement process, costs have continued to decline.

8 Q. And have you factored this into your
9 calculations?

10 A. No, I have not.

11 Q. So you used the costs that were in effect before
12 the incident?

13 A. Yes.

14 Q. If you had factored in these lower costs that
15 occurred since the incident, would that have increased
16 or decreased damages?

17 A. It would have increased them.

18 Q. Next category in Exhibit 1A are overhead costs.
19 Can you explain what you did to determine overhead
20 costs.

21 A. To determine overhead costs, I looked at the
22 monthly financial statements for October, November,
23 December -- October, November, December, January,
24 February and March of '07 to '08, and I selected that
25 period because that's the same six-month period where

1 sales to Criterion really ramped up and we were into --
2 well, Packgen was into a new program, this new program
3 with Criterion and so I selected those months and I had
4 to normalize the months.

5 They were -- you know, October was not equal
6 to November and was not equal to December and so on and
7 so forth. December was out of whack with everything
8 because that's when the accounting firm comes in and
9 makes its annual adjustments and posts everything to
10 December, so I needed to remove the one time charges
11 that apply to 12 months and get them prorated. For
12 instance, in December there are bonuses. Well, that
13 bonus applies to all 12 months, not just to December.

14 So I went through the six-month of financial
15 statements, I highlighted the various accounts that --
16 for instance, there are some accounts that should
17 always be positive, some of them were negative. You
18 know, you would have three months that were similar and
19 then two months that were half as much or half as much
20 again and I sat down with the bookkeeper and said I
21 want you to go through and I want you to explain to me
22 what are all these differences, which she did.

23 She put a worksheet together and then I sat
24 down with that worksheet and she had supporting
25 documents to show me as to what all those charges were

1 to the accounts and I went about normalizing them so
2 that the six months of expenses for factory overhead
3 and selling, general, administrative were reasonably
4 close to each other.

5 Q. Do Exhibits 5, 6 and 7 show the work you did on
6 the overhead calculations?

7 A. Yes.

8 Q. Could you explain each one of those exhibits.

9 A. Okay. Well, let's come back to 5 because that's
10 a summary sheet. Exhibit 6 is where I posted up from
11 the monthly financial statements the factory overhead
12 accounts and down below, the G and A accounts and then
13 on the second page of 6, we have, a third of the way
14 down, it says total overhead and then down below is
15 adjustments and these are all of the adjustments that I
16 made to the total overhead expense so that it was
17 normalized.

18 Some of the totals increased, some of the
19 totals decreased, but I felt that when I was done, I
20 had six months of expenses here that reflected on
21 average what was going on with the company during this
22 period.

23 Q. And how about Exhibit 7.

24 A. Exhibit 7 is the subsidiary worksheet just for
25 factory overhead. This is the worksheet that the

1 bookkeeper put together with all of her explanations
2 off to the right and the second page is the same thing
3 for the selling, general, administrative expenses and
4 the third page is the same thing for labor and I used 7
5 as the basis for the adjustments on the second page of
6 6 and then I brought the -- normalized overhead
7 expenses on 6 back to 5. And what I'm doing here on 5
8 is I'm taking --

9 THE COURT: Now you've really thoroughly
10 confused me. Explain this.

11 A. Okay. Where would you like me to start, Your
12 Honor?

13 THE COURT: Well, why don't you begin at the
14 beginning where you started talking about 6.

15 A. Okay. On 6, it's six columns, October, November,
16 December, January, February and March, the six-month
17 period where we have these ramped up sales to
18 Criterion.

19 The first section is factory overhead and
20 those dollar amounts that you see there come from the
21 company's monthly financial statements. Down below,
22 where it says S, G and A, which stands for selling,
23 general, administrative, again we have six months of
24 numbers pulled off from the company's monthly financial
25 statements.

1 If we turn to Page 2 of 6, I have total
2 overhead expenses which is adding the total factory
3 overhead and adding the total of S, G and A. For
4 instance, in October, the total overhead expense per
5 the monthly financial statement is \$148,528. That's
6 about a third of the way down in the first column.

7 So now, the question is well, what is in
8 October that isn't -- either isn't an expense or needs
9 to be increased because an expense was paid in a
10 different month that had to be moved back to October or
11 an expense that was in October that needed to be pulled
12 out and moved to another month.

13 So all of the adjustments are under adjustment
14 and there's two-dozen of them, and in the case of
15 October, we only go from 148,000 to 149,000 so there's
16 a lot of heat, but not much light in October.

17 And the same thing in November, we go from 183
18 to 183, but in December, we go from 240, which is high
19 because that's when all the accountants are making all
20 the year-end adjustments, we go from 240 down to 186.
21 In January, we go from 233 to 229. In February, we go
22 from 215 to 167 and in March, we go up from 148 to 189.

23 Okay, now, I felt I had to do this exercise
24 because I didn't know whether or not, you know, the
25 pluses and the minuses were going to balance each other

1 out for some of the months. I didn't know that going
2 in, but I knew from my analysis on the front of 6 that
3 there was things in these accounts that just didn't
4 belong there. What I didn't know was that some of the
5 pluses and some of the minuses would balance themselves
6 out, but it was an exercise I felt I had to go through.

7 Okay, so 6 is the summary of my normalizing.
8 7 is the worksheets that I used to prepare the
9 adjustments on the second page of 6.

10 Q. And then Exhibit 5, I think you said, summarizes
11 what you're doing on overhead; is that right?

12 A. Yes. If we look at 6 above the chart to the
13 right, it says total normalized cost, \$149,527. That
14 comes from the second page of 6 where it says
15 normalized overhead expenses and in November, it's
16 183,035. I'm bringing that over, I'm bringing over
17 December's 186,283 and so on and so forth.

18 So I've normalized six months of overhead and
19 now, I need to do something with that. I need to
20 allocate it between CRI, I need to allocate it to all
21 the other sales and I need to allocate it to the
22 expected sales to the 37 refineries.

23 So what I'm doing here on 5 is taking my
24 overhead and apportion it -- apportioning it between
25 the three different sales categories and the way I did

1 that was that I used a regression model, a simple
2 linear regression. That regression was not
3 statistically significant, but I'm not making
4 projections, I'm just doing allocations.

5 The other approach would have been to just
6 take the simple average, but I didn't do that because
7 the regression model, even though it's not
8 statistically significant, it's still a 29 percent
9 improvement over the average and it allowed me to break
10 down overhead between fixed expenses and variable
11 expenses.

12 Q. So when you include overhead in Exhibit 1A, are
13 you including only variable expenses?

14 A. No. I'm including both fixed and variable on the
15 assumption that if we lost those sales, then some of
16 our -- a portion of our fixed expenses would either
17 disappear or they would be absorbed by some other
18 product.

19 Q. And just so we're clear, what is variable
20 overhead?

21 A. Variable overhead moves in a direct relationship
22 with sales. Fixed expenses, like rent, that's the same
23 whether your sales are a dollar or \$2 or \$10.

24 Q. So although fixed overhead stays the same, you
25 decided to deduct that from Exhibit 1A?

1 A. Yes.

2 Q. And that would have the effect of lowering
3 damages; correct?

4 A. Correct.

5 Q. And just so we're clear, why did you decide to
6 deduct fixed overhead even though that's an expense
7 that would continue on regardless of the incident?

8 A. Well, I wasn't absolutely sure that it would
9 continue, that there's a chance that it would disappear
10 or, more importantly, that it would just be absorbed by
11 another product.

12 Q. And then you plugged those numbers into
13 Exhibit 1A?

14 A. Yes.

15 Q. And that's in the section called overhead costs?

16 A. Yes and the formula is it's 11 percent of sales,
17 plus \$32,582 a month.

18 Q. And the 11 percent of sales comes from the
19 regression analysis you just referred to?

20 A. Yes, it comes from 5. If we look at the upper
21 left-hand corner of Exhibit 5 and see the constant of
22 32,582, that's 26.4 percent of total fixed overhead
23 because CRI sales were 26.4 percent of total sales and
24 the 11.184 is the slope of the line. That's the
25 variable costs, which is a function of sales.

1 Q. I think we'll all be happy to move on to overhead
2 costs then. The next line on Exhibit 1A is net profit;
3 can you summarize what that line represents.

4 A. Yes. Net profit is the difference between unit
5 sales of 2,978,882, after subtracting the for costs and
6 we come down to a 1,103,725.

7 Q. The next two lines on Exhibit 1A should be taken
8 together, present value factor and then the annual net
9 present value. Should we discuss those together?

10 A. Yes.

11 Q. Okay, great. Describe what you've done in those
12 two lines.

13 A. Well, the net profit has to be discounted back to
14 present value, I think, as a matter of law and in this
15 case, I've used a risk adjusted discount rate and I've
16 used a half year convention, which is just another way
17 of saying that I've assumed profits were earned ratably
18 throughout the year and not all at once on December
19 31st.

20 Q. What's a risk adjusted discount?

21 A. Well, a non-risk adjusted discount rate is the
22 risk free rate which is usually the coupon rate on a
23 federal bond. There is no chance that you will lose
24 your principal and in personal injury and wrongful
25 death case, the risk free rate is what's used to

1 discount to present value because the earnings stream
2 of the individual has already had all of the risk taken
3 out of it; the risk of dying, the risk of being too
4 sick to work, the risk of being unemployed and that's
5 why you see work life expectancies not adding -- not
6 stopping or coming to Social Security retirement age,
7 but stopping some -- anywhere from five to six to seven
8 to eight to nine years before because all those risks
9 have been used to lop off those number of years.

10 So now, you have earnings that are certain.
11 Once you have earnings that are certain, you can use a
12 risk free rate because a risk free rate assumes that
13 the cash flows are certain and those statistics to work
14 up those work life expectancies come from millions of
15 United States citizens. The federal government
16 collects all that information and makes it available
17 and actuaries prepare these tables.

18 No such information, no such data is available
19 for commercial enterprises, for businesses. It's just
20 not out there, so there's no way to adjust the cash
21 flows so that you can use the risk free rate. The cash
22 flows are what they're expected to be and you have to
23 account for risks in the discount rate. So I've
24 calculated a risk adjusted discount rate to account for
25 the risks of not obtaining these profits in the amounts

1 stated here and in the time stated.

2 Q. What kind of risks are accounted for there?

3 A. Well, there is normal every day business risk
4 that all businesses face. There's always competition,

5 there's always technology, new technology, there's
6 always changes in the laws, there's changes in the
7 economy, we have good times, we have bad times.

8 Businesses have to have a shock absorber to be able to
9 handle all of that and the smaller the business, the
10 smaller the shock absorber and the more difficult it is
11 to absorb all of these changes, so one needs to build
12 up a discount rate that's high enough to reflect
13 vulnerability of a small business.

14 Q. And what methodology did you use to determine a
15 discount rate in this case?

16 A. Well, for my equity discount rate, I used a build
17 up method and then I used that to develop a weighted
18 average cost of capital because the loss, the loss of
19 net profits is not to the shareholder, it's to the
20 company and the company supports its assets with debt
21 and with equity so the place to -- first place to start
22 was develop a cost of equity discount rate. The next
23 thing to do was determine what its after-tax cost of
24 capital was for its long-term interest bearing debt and
25 then to combine those into a weighted average cost of

1 capital.

2 Q. If we can back up a little bit. You referred to
3 the build up methodology; is that an accepted
4 methodology in your profession?

5 A. Yes, it is.

6 Q. And is there an exhibit that shows how you used
7 that methodology?

8 A. Yes. Exhibit 9 shows how I built up my equity
9 discount rate.

10 Q. And describe how that works, Exhibit 9.

11 A. Okay. We start with the risk free rate and then
12 we add the equity risk premium, that's the S & P 500
13 stock total returns over bonds, 1926 to 2007, and that
14 averages 7.05 percent and we come up with 11.4 percent,
15 which is the valuation date average large stock market
16 return, that is, the companies in the largest
17 20 percent of all publicly traded stocks have discount
18 rates of approximately 11.4 percent. However, the
19 smallest five percent of all publicly traded stocks
20 have discount rates of close to 24 percent. That's
21 where the 12.45 percent comes in.

22 I'm adding the risk premium for size for the
23 20th smallest percentile as small as five percent, and
24 that's an historical average from 1926 through 2007.

25 I'm then reducing that by .82 percent for a particular

1 study that says that the discount rates that we're
2 using are too high because of certain permeations --
3 perturbations in the market in recent year.

4 Q. That's the Ibbotson and Chen study that's
5 referred here?

6 A. Yes. That amount at the end of 12/31/07 for that
7 year was negative .0082. So that brings us to
8 somewhere around 23 percent for the smallest five
9 percent of all publicly traded stocks so that the
10 question then is well, how much more risk is there
11 associated with a company like Packgen.

12 For instance, the smallest five percent of all
13 publicly traded stocks have market capitalization of
14 over \$30 million. That's not sales, that's value, over
15 \$30 million, okay, orders of magnitude greater than
16 Packgen.

17 So we need to add to that -- to answer that
18 question how much more, what I did was I went down a
19 list of factors and asked the question okay, how much
20 more vulnerable is Packgen than the smallest five
21 percent of all publicly traded companies for these
22 various factors.

23 Q. And are these standard factors that --

24 A. These are --

25 Q. -- you would look at?

1 A. Yes. They're standard factors and the amounts
2 that I assigned to them are -- they're my decision as
3 to what I think they should be.

4 Now, could somebody disagree with me? Yes.
5 Instead of .002, could somebody say it was .0025 or
6 even .003? Sure, but it wouldn't necessarily be higher
7 than I am on each of them or necessarily lower than I
8 am on each of them and if we had a hundred valuation
9 experts build up a method for Packgen, I feel confident
10 that the average would be somewhere around 27.2.

11 It's -- I have valued hundreds of companies
12 over the last 20 years and I have found that the
13 typical discount rate for a small business in Maine is
14 somewhere between 26 and 30 percent.

15 Q. So you're right within that range here?

16 A. In that range. The only reason it would ever be
17 less than that would be if the company had been around
18 for a long time, had over \$5 million in sales, was
19 consistently profitable and, most importantly, had no
20 debt. It's not the case here.

21 Anything higher than 30 percent, you're into
22 venture capital discount rates. This company's got
23 size. At 12/31/07, it had over a million dollars in
24 equity. They had a pretty large shock absorber so I
25 thought it belonged down at the lower end of that

1 scale.

2 Q. These other risk factors that you've listed here,
3 what information did you use to make your professional
4 judgments about the numbers that you assigned to each
5 factor?

6 A. My discussions with Mr. Lapoint, my review of the
7 financial statements. I did the same thing that all
8 valuation analysts do when they put this together.
9 It's a combination of things and a lot of it depends on
10 the specific answers to these questions.

11 Q. You also referred to weighted average cost of
12 capital; is there an exhibit that shows that?

13 A. Yes. That's Exhibit 8A.

14 Q. And can you explain 8A, please.

15 A. All right. On 8A, to develop a weighted average
16 cost of capital as opposed to just using an equity
17 discount rate of 27.2 percent, you need a weighted
18 average cost of capital because the loss is not to the
19 shareholders, the loss is to the corporation. The
20 corporation supports its assets with both equity and
21 debt, therefore you need to develop that weighted
22 average cost of capital, which I've done here.

23 It's a simple formula. First thing I had to
24 do was put a value on the company. To do that, I took
25 its annual revenue for 2007 and multiplied it times

1 .7127 which gave me \$3,687,158. Let me explain what
2 the .7127 comes from and that's on Exhibit 10A.

3 These are -- 10A a series of purchase and sale
4 transactions that I got from the Pratt's Stats database
5 for NI -- National -- North American Industrial
6 Classification System, code numbers 31499 and 314912,
7 which was the NAICS on the company's tax returns and
8 you can see it has to do with -- well, stitching,
9 okay, which is essentially what -- is how Packgen makes
10 its products.

11 The comparables do not have to be exact, they
12 just need to be similar, they just need to be relevant.
13 This is the closest classification that comes to what
14 Packgen actually does. I used asset sales. On the
15 previous version, I had a couple of stock sales in
16 there, but they didn't belong there. I pulled those
17 out and recomputed and the proper mean to use -- the
18 proper average to use is the weighted harmonic mean.

19 When you have a data set of ratios, unless the
20 numerators are all the same or the denominator -- let
21 me put that another way. If the numerators and
22 denominators are all different, then the truest mean is
23 the weighted harmonic mean and that's calculated by
24 dividing the average of selling prices by the average
25 of revenue. That came to .71. That's how I came up

1 with the .71; in other words, the price of a company is
2 relative to its revenue by a factor of .71.

3 Q. Were there some recent changes made to Exhibit
4 8A?

5 A. Well, as I said, I had two stock sales in there.
6 I took those out and I have all asset sales, which
7 means that --

8 Q. That's in 10A?

9 A. 10A, yes.

10 Q. And that rippled through to Exhibit 8A?

11 A. That comes back to 8A. And what that means is
12 what you get for that \$3,687,000 is the intangible
13 assets and the fixed assets, but we're looking for the
14 value of the equity of the company so we have to add
15 all the current assets, the note receivable that's on
16 the books, subtract the interest bearing debt, subtract
17 all the other liabilities and the equity value of the
18 company, the value of its stock is \$4,415,000.

19 So if we know the value of the equity, we know
20 the value of the long-term interest bearing debt of
21 \$141,912, the total invested capital is 4,557,000, the
22 ratios are 3.1 to 96.9. We know where the 27.2 came
23 from, that's from Exhibit 9. The cost of debt, the
24 financial statements said that that debt was carrying,
25 I believe, it was 8 and a quarter rate of interest. I

1 tax affected it at 35 percent giving us an after-tax
2 cost of debt of 5.4 percent, and so the weighted
3 average, when you multiply 5.4 percent times the 3.1
4 percent, that debt represents in a capital structure --
5 the weighted average cost of debt is .17 percent, the
6 weighted average cost of equity is 26.38, you add the
7 two together and you get 26.55 percent.

8 Now, I subtracted the historical rate of
9 inflation because I wanted to use a real interest rate,
10 that is, an interest rate that didn't have inflation in
11 it because I did not -- if you go back to 1A, you'll
12 see that I did not inflation adjust sales dollars and I
13 did not inflation adjust any of the costs. If I had,
14 that would have increased -- since sales is the larger
15 number, sales would have increased at a faster rate
16 than costs, lost profits would have increased and the
17 damages would have been larger.

18 Q. And before we then move back to Exhibit 1A, did
19 you discover when you were preparing for this hearing
20 an error in the figures at the top of Exhibit 8A?

21 A. Yes, yes.

22 Q. And can you describe what that was.

23 A. The annual revenue figure for 2007 was not
24 Packgen's number, it was somebody else's number. How
25 it got there, well, I think this was a template that I

1 just carried forward. I made what I thought were all
2 the necessary changes, but I missed that one.

3 Q. And you correct that then on Exhibit 8A?

4 A. Yes.

5 Q. And did that correction have the effect of
6 raising or lowering averages?

7 A. It -- I think it lowered it.

8 Q. In other words, it raised the discount rate; is
9 that what you're saying?

10 A. No, it -- I can't remember. I'd have to look at
11 the original 8.

12 Q. And do you recall the original Exhibit 1 and
13 original 8A, it was 22. something, the discount rate?

14 A. Oh, okay. Then the discount rate went from 22
15 something to 23.35. The discount rate went up and
16 damages went down.

17 Q. Back now to Exhibit 1A, all of the things you've
18 been talking about then are plugged in on those two
19 lines that are the second and third from the bottom?

20 A. Yes. The inflation adjusted weighted average
21 cost of capital of 23.35 percent produces -- it's used
22 in a formula to calculate the present value factor, for
23 instance, in year one of .9004. That's the present
24 value factor for weighted average cost of capital of
25 23.35 percent using the half year convention.

1 Q. And what period did you apply the discount rate
2 to?

3 A. I applied the discount rate to a ten-year period.
4 One of the reasons that I did this is that the customer
5 relationship with Criterion has been destroyed. It's
6 been six years and Criterion still won't talk to
7 Packgen, so the relationship is over.

8 Now, in lost profits, when a business has been
9 destroyed, the proper measure of value, proper measure
10 of lost profits or damages is the value of the business
11 that was destroyed. Well, we didn't have a business
12 that was destroyed, we had a relationship that was
13 destroyed and when you value that destroyed business,
14 if you use an income approach, what you're valuing is
15 the loss of all the future profits, all the future cash
16 flows and the question is well, how far out in the
17 future do you measure those cash flows or those lost
18 profits when a business is destroyed and the answer is
19 well, you go out to infinity.

20 When you use a discount of cash flow model
21 with a terminal value or you use a capitalized cash
22 flow model, built into both of those models is the
23 assumption that cash flows are going out to infinity.

24 So we had the same situation here, not a
25 destroyed business, but a destroyed relationship and so

1 the same theory applies. I didn't take it out to
2 infinity, I only took it out to ten years because ten
3 years captures approximately 90 percent of all the
4 losses.

5 Q. Is there any rule of thumb in the profession as
6 to how far out you should take out a damage analysis?

7 A. It depends on the situation, but I have generally
8 never seen anything past ten years because typically,
9 you've got 90 percent of the losses, though
10 theoretically you could go out to infinity.

11 Q. And at this point then, your damage projections
12 are only projected out four years into the future?

13 A. Well, yeah. The incident was April 7, 2008, and
14 here we are almost March 1st, 2104, so I'm really only
15 projecting at this point four years.

16 Q. Did you apply the discount rate to the entire
17 ten-year period or only to the four years that are now
18 in the future?

19 A. I always discount to the date of the incident so
20 I'm discounting over the full ten years. Some people
21 discount to the date of trial. To me, I don't think
22 that's correct because that makes all of the losses
23 prior to the date of trial not subject to discounting
24 and therefore, it makes them a certainty and to me that
25 overstates the loss.

1 Q. So in this case, you applied the discount rate to
2 the six-years that are in the past which had the effect
3 of reducing it?

4 A. Yes.

5 Q. Now, does your analysis assume that Packgen would
6 have sold all of these units that are sold -- shown
7 rather in the unit sales line during the ten years
8 period?

9 A. Yes. The assumption is that whatever they were
10 selling in that six-month period would have continued.
11 I mean Criterion was invested in the product. There
12 were no indications that they were dissatisfied, that
13 -- on the one hand, there were no indication that
14 sales would be less and other than the purchase orders
15 for April, there was no indication that -- no evidence
16 supported indication that sales were going to be more.

17 I know that Packgen's expectation was that
18 sales would go to 3 to 4,000 units a month, but there
19 was no evidence of that. That was just an expectation.

20 Q. Did you rely on the report of David Berman, the
21 catalyst industry expert, in making that determination?

22 A. I don't think so.

23 Q. Did you rely on the fact that there were economic
24 advantages to Criterion?

25 A. Oh, well, yes, of course. That was why they were

1 enthusiastic about the product, why they were invested
2 in the product, why they had made all of the suggested
3 changes and modifications and why they had doubled
4 their sales because it was obviously saving them money,
5 but again, there was no -- we had no supporting
6 evidence that sales would have been either increasing
7 or would have gone back and cut in half to what they
8 were prior to October of 2007.

9 Q. And the economic advantages of these containers
10 made by Packgen, did you get that information from the
11 designation of Mr. Berman?

12 A. Yes.

13 Q. You've testified that you used fixed revenues and
14 fixed costs rather than building in inflation into your
15 model.

16 A. Yes.

17 Q. Does that mean that you think costs and revenues
18 would not change at all during the ten-year period?

19 A. No, no, not at all. I'm sure that whatever --
20 if there were cost increases, that those costs would be
21 eventually passed on to the customer, just like
22 September of 2007, the price went from \$100 to \$200
23 because of the changes in costs to produce the new
24 model, but that they would be more or less in lockstep
25 over time and that the margins would remain the same.

1 So there was really no reason to attempt to guess at
2 when and where those changes were going to take place,
3 it was just simpler. Leave it at 1,261 units, \$196 and
4 leave the costs. Otherwise, you know, I would have to
5 have taken sales, multiplied it by two and a half
6 percent a year and grown it at inflation. I would have
7 done the same thing with the costs. All that would
8 have done would have been to increase the lost profits
9 and increase the damages.

10 Q. Is fixing revenues and costs in this situation an
11 accepted method that you've seen damage experts use?

12 A. Yes. Some damages experts like to use real
13 interest rates and don't use inflation, don't inflate
14 revenue and don't inflate costs.

15 Q. In Exhibit 1A then, did you come to a conclusion
16 as to the amount of Packgen's lost profits relating to
17 the loss of Criterion's sales?

18 A. Yes, I did.

19 Q. And what is your conclusion?

20 A. That the damages suffered by Packgen are
21 \$4,606,405.

22 Q. And that's after reducing them for the discount
23 rate?

24 A. Yes.

25 Q. And to what degree of certainty is your opinion

1 as to those damages?

2 A. More than 51 percent.

3 Q. Would you describe it as a reasonable degree of
4 certainty?

5 A. Reasonable degree of certainty, yes.

6 Q. Let's switch now to the refineries, the second
7 category of damages here.

8 First of all, if you would explain for the
9 Court what we mean by the refineries, what exactly are
10 we referring to there.

11 A. Well, as I said before, Criterion manufactures
12 catalyst, which it then delivers to refineries, which
13 they then put into reactors at those refineries and
14 it's used in the refining business to remove various
15 impurities from the oil so it can be refined into
16 gasoline, kerosene and fuel oil, et cetera. So the
17 Criterion customer was a manufacturer of catalyst. The
18 37 refineries were the refineries -- were the customers
19 of Packgen that used catalyst.

20 Q. What methodology did you use to determine damages
21 for the refineries?

22 A. I used the sales projection method and as opposed
23 to the Criterion model, which was a deterministic
24 model, that is, I accounted for no future
25 contingencies. In the refinery model, I needed to

1 account for future contingencies. So it's a
2 probabilistic model.

3 Q. Would you describe a probabilistic model.

4 A. Probabilistic, or a term of art is a stochastic
5 model, accounts for future contingencies. Instead of
6 saying that, you know, let's say that -- instead of
7 saying that the next five-year sales would be A, B, C,
8 D and E, you could say well, I anticipate that because
9 of change in technology, somewhere in the -- about the
10 fourth year, competitors are going to enter the market.
11 That's a future contingency that you would have to
12 account for.

13 In a probabilistic model, you account for that
14 by assigning probabilities to that proposition and you
15 can do that with all kinds of propositions. You can do
16 that with all kinds of future contingencies to try to
17 answer the question have I accounted for everything
18 that I think might occur in the future to affect my
19 profits.

20 Q. And why did you choose the probabilistic method
21 for the refineries as opposed to the deterministic
22 method?

23 A. Well, we have been selling to refineries, Packgen
24 had been selling to refineries all over the country,
25 overseas, but they had a minimal track record with

1 these 37 refineries and we should, perhaps, deal with
2 why these 37 refineries.

3 Well, as Mr. Berman explained in his industry
4 expert report, the most likely buyers or the most
5 likely customers for Packgen were those customers who
6 would realize the greatest amount of savings and the
7 customers that would realize the greatest amount of
8 savings from switching from metal flow bins to the IBCs
9 that Packgen was making were those refineries that were
10 geographically situated far from either Texas, where
11 the flow bins had to be returned, or from the catalyst
12 reclamation or recycling plants.

13 On average, every 30 months you have to
14 replace the catalyst. You have to shut the place down,
15 empty the reactors and send this catalyst, this spent
16 catalyst, off to be reclaimed and then you have to send
17 the flow bins back to Texas to be cleaned out and they
18 charge anywhere from 260 to \$6 a day per flow bin and
19 so the further away you are from those places, the more
20 cost savings you would have by using an IBC from
21 Packgen.

22 So there is more than 120 refineries in North
23 America. Packgen sat down and figured out which of
24 those 120 would realize sufficient savings that they
25 would become potential customers. As we see, the

1 amount of cubic feet of catalyst involved was confirmed
2 by Mr. Berman and that's how we came up with the 37
3 refineries who would be the most likely potential
4 customers or the customers that they were going to
5 focus on.

6 Q. Do you have an understanding as to whether
7 Packgen had actually marketed these customers before
8 the product failure?

9 A. Well, they have had -- in prior years, they had
10 sales, I believe, to about six of these refineries, but
11 prior to the incident in April of 2008, yes, they had
12 been marketing to these 37 refineries.

13 Q. Before we get into more details then on the
14 refineries, let's just go back to explaining a little
15 bit more about the probabilistic model.

16 What do you do then to determine damages on a
17 probabilistic basis; what kind of methodology is
18 available to you?

19 A. Well, we use what's called simulation software
20 that was developed in the mid '40s by the people
21 working on the Manhattan Project. It laid dormant for
22 years for people like myself until the invention of the
23 personal computer and then starting in the '90s,
24 simulation software as an add in to Excel became
25 available to practitioners like myself and I use a

1 piece of software calls XLSim. Other software is At
2 Risk or Crystal Ball. There is another one I found the
3 other day called GoldSim. There's any number of pieces
4 of simulation software out there that allow you to
5 build a probabilistic model.

6 Q. And how does a simulation model work?

7 A. Well, for instance, let's say you had in cell
8 number one, you had the number two and in cell -- right
9 next to it you had the number three and the third cell
10 was a formula that said multiply cell one times cell
11 two. So if you had two times three, the answer would
12 be six.

13 But you could, using this software, you can
14 set it up so you can say okay, make cell number one an
15 integer between 1 and 3, make cell two an integer
16 between 5 and 8 and then with the same formula, give me
17 an answer. You would set your output cell, for cell
18 three, and you could set it for any number of trials.
19 You can set one, two trials, ten trials, a hundred
20 trials, a thousand trials and each trial is a
21 computation of cell one times cell two and then when
22 it's done, it takes the sum of all those trials and
23 averages it and that's the result that appears in cell
24 three.

25 It's a simple explanation and there is any

1 number of distributions that you can use to make the
2 numbers in cell one and cell two be different. You can
3 use a normal distribution, you can use a triangular
4 distribution, you can use a uniformed distribution.
5 There is any number of distributions, but in finance,
6 on cases like this, typically you would use normal,
7 uniform, discrete and triangular distributions.

8 Q. We'll talk a little bit more about those as we
9 move along. So as I understand it, you're saying that
10 a simulation does trials of a whole range of incomes
11 and a broad range of outcomes, I should say, not
12 incomes, a broad range of outcomes based on the
13 probability distribution is the same?

14 A. Yes. Yes, I ran 5,000 trials.

15 Q. And was it fair to say, using the baseball
16 analogy, it's everything from Packgen completely
17 strikes out up to Packgen hits a home run, plus all
18 possibilities in-between?

19 A. Yes, yes.

20 Q. Do you yourself have any training in simulation
21 modeling?

22 A. Yes. I took a three-day course with the American
23 Management Association on financial modeling. I have
24 about half a dozen books on simulation modeling that
25 pertain just to finance. It's not something that I use

1 all the time because it's really only applicable to
2 certain situations.

3 I mean if I was the comptroller of Packgen, I
4 would be using simulation all the time to try to help
5 make decisions about what projects to invest in, what
6 products to make and, you know, if we lower our price,
7 increase advertising, so on and so forth, but in
8 damages cases, this is only the third time I've used it
9 and what's similar among all three cases is that there
10 was minimal historical experience, but there was good,
11 hard numbers that we could assign probabilities to.

12 Q. In your opinion, is using simulation models in
13 these sorts of situations an accepted methodology by
14 damage experts?

15 A. Yes.

16 Q. What do you base that on?

17 A. I base that on court cases that I've seen, I base
18 that on chapters in the litigation handbook for
19 financial experts.

20 Q. And have you been to any seminars for damage
21 experts at which this methodology is discussed?

22 A. I've probably been to a couple.

23 Q. Now, let's talk about applying a simulation model
24 to this case. Did you consider whether there were
25 sufficient facts and data in which to use the

1 simulation model?

2 A. Yes, I did.

3 Q. Can you explain what sorts of things you
4 considered here.

5 A. Well, first thing we wanted to consider was what
6 information do we have about the number of units that
7 could be sold. Packgen had, and I have here as an
8 exhibit, which is Exhibit 17, a list of the 37
9 refineries, how much catalyst they used, how many
10 containers would be needed to move that volume of
11 catalyst. We had the quoted prices, but we will come
12 back to that, and then we took that the catalyst is
13 moved every 30 months. That was converted to an annual
14 quantity and so if a refinery was going to give us all
15 its business, we knew what that number was from
16 Exhibit 17.

17 So then the next step was to say okay, if we
18 had 100 percent of their business, that would be our
19 best-case. What -- the question posed was well, what's
20 the worst-case and what's the most likely case? Well,
21 it turned out that the worst-case was if we got their
22 business, we would get 50 percent of it and the most
23 likely case was 85 percent of the maximum.

24 So on 13A in the upper left-hand corner, we
25 can see most likely 152 units, best-case 179 and

1 worst-case 89 for BP's Carson, California refinery. So
2 that was the first input that we had solid numbers. We
3 knew what the maximum was.

4 Q. And in addition to these numbers that were on
5 Exhibit 17 for these refineries, did you also -- was
6 it also relevant that Packgen had been in this business
7 for quite a while and that this was not a new business
8 or a new product line for Packgen?

9 A. It's absolutely correct. Packgen, while it only
10 sold to six of these refineries, okay, it was selling
11 this product around the world. It had been in this
12 business, well, since it opened in 2002 making the
13 IBCs.

14 Q. Is it also relevant to your determining whether
15 to use a simulation model that Packgen had been
16 marketing these refineries listed on Exhibit 17?

17 A. Well, my understanding is that 17 was originally
18 generated to assist Packgen in answering the question
19 who are we going to market to. 17 was not produced for
20 litigation. It existed at the time of the incident.

21 Q. And did you have discussions with Packgen
22 personnel about these refineries in Exhibit 17, why
23 they had been included on this list?

24 A. Yes, and as I said before, the answer was they
25 are included on the list because of geography. These

1 37 were those that would most likely be customers
2 because they would enjoy the greater cost savings.

3 Q. And the economic advantages that Mr. Berman will
4 testify to, that he referred to in Criterion, is that
5 also relevant to the refinery damages?

6 A. Yes. It's the same equation.

7 Q. Let's talk now about how you applied the
8 simulation model to the facts of the case which would
9 get us back to Exhibit 13 then.

10 A. Yes.

11 Q. There are a number of distributions referred to
12 in Exhibit 13A. Where did you get the data that you
13 used for those distributions?

14 A. Well, as I just said, for units sold, we knew
15 what the maximum was and then the discussion with Mr.
16 Lapoint got us down to what would be the worst-case,
17 what would be the best-case and so when you have most
18 likely, best and worst, that's easily assignable to
19 what's called a triangular distribution and that
20 distribution, when you run the trials, will pick a
21 number anywhere between the lower number and the higher
22 number. Of course, it will focus on the most likely
23 number, but it will make a probabilistic decision as to
24 which number to pick.

25 Q. And what is a triangular distribution?

1 A. It's a distribution with three points. The mode,
2 the most likely, the best-case, the high point, and the
3 low point we assign the worst-case.

4 The formula and the computations, that's what
5 we have computers for. They do all the heavy lifting
6 but, you know, if you sat down with any businessman and
7 said, you know, give me the numbers for a normal
8 distribution, they can't answer that question. They
9 can't even answer the question well, is it a 40 percent
10 chance of this or 30 percent chance. They can't give
11 you an answer even for a discrete probability
12 distribution, but every business owner can answer the
13 question what do you think your best-case is, what do
14 you think the most likely case is and what do you think
15 your worst-case is. They can all answer that question
16 pretty well and that's what we did with units sold.

17 We knew what the best-case was, we just had to
18 work up what the most likely and the worst-case was and
19 I had to do the same thing with unit price. The prices
20 or the best-case prices come off of -- also come off of
21 17 and those are the quoted prices, the common quoted
22 prices that are on a -- that are Packgen's list
23 prices.

24 Okay, so we weren't guessing at what the
25 prices were going to be, we knew what the prices were

1 and the question was, okay, we know what the best price
2 is, that's the list price, how much less would the most
3 likely and the worst-case be and since these were
4 quoted prices -- and these were prices that Packgen was
5 getting for the Cougars that they were selling to
6 refineries other than these 37. The most likely case
7 is, I think, 95 percent of 379 and the worst-case was
8 90 percent.

9 So there was less movement in the price
10 because it was a quoted price, it was a list price, and
11 it was a price that they were obtaining. So Packgen
12 felt that they wouldn't have to give much on price in
13 order to sell these products.

14 Q. Does Exhibit 18 show that information for
15 purposes of unit sales and unit prices?

16 A. Yes.

17 Q. Can you describe what Exhibit 18 shows.

18 A. Unit -- Exhibit 18 takes each of the 37
19 refineries and puts all in one place for each year the
20 quantities and -- the three quantities and the three
21 prices.

22 Q. Just one question about the interpretation of
23 Exhibit 18. The predicted worst and best categories
24 apply both to quantity and the unit pricing?

25 A. No. Predicted worst and best apply only to

1 price. For quantity, it's something different. I
2 apologize for that confusion. I should have had two
3 columns.

4 Q. Based on all the information you've described or
5 that was available to you, did you make a professional
6 judgment as to what the predicted, worst- and best-case
7 scenarios should be for the unit prices and unit sales?

8 A. Yes. In conjunction with this conversations with
9 Mr. Lapoint, that's what I came up with.

10 Q. Did you consider whether you should use
11 distributions other than a triangular distribution for
12 the refineries?

13 A. For those two categories of unit price and units
14 sold, no. You know, I didn't have any historical data
15 to have a normal distribution. I didn't think it was
16 uniform in that I didn't think it was -- that each
17 number had an equal chance of occurring. I thought
18 that the most likely case had the best chance of
19 occurring and I wanted to account for that. There was
20 no way to come up with this discrete distribution.
21 Nobody could tell me well, this is 40 percent and
22 that's 50 percent and that's 10 percent.

23 Typically, in a financial model with
24 situations like this, the default probability
25 distribution is a triangular distribution because it's

1 easily satisfied by best-case, worst-case and most
2 likely case.

3 Q. Exhibit 13A, I think you said that that was one
4 trial for a particular refinery?

5 A. Right. What we're looking at here is just one
6 trial. I ran 5,000 trials.

7 Q. So basically this is a sample of what the
8 simulation program is doing?

9 A. Right, right and I think the next thing we have
10 to address is -- well, the next thing I had to address
11 was what was Packgen's success rate going to be. We
12 could have a success rate between zero percent, and
13 after all this hard work and a great product and low
14 prices, that Packgen never sells anything, to our
15 best-case of all 37 refineries place all of their
16 container needs with Packgen and pay the maximum price.
17 So how do you deal with that?

18 Well, what I did was I used a uniform
19 distribution and the best way to look at this is if we
20 go to the top where it says units and then underneath
21 units it says entry year and under that it says 1
22 through 10 and that's the entry year. Underneath that
23 it says random number and here for year 1, the random
24 number is 4 and 3 and 9 and 8 and 3 and then 6 and
25 notice that the random number 6 matches the entry year

1 6 and since it matched, if we come down to year 6, we
2 see 123 units.

3 All right, so what I've done here is I've made
4 the 4, the 3, the 9, the random numbers, those are
5 random numbers. What's in there is the number 1
6 through 10 and every time you run a trial, a new number
7 appears. If that number, that random number matches
8 the entry year, that's the year that we make a sale to
9 one -- to this particular refinery.

10 So on this trial, we made a sale in year 6 of
11 123 units, which is somewhere between the worst-case
12 and the most likely case. In the triangular
13 distribution, it just doesn't pick one of those three
14 numbers, it picks any number in-between, but it's
15 weighted based on the formula of the distribution.

16 For instance, if year 7 had also had a 7 or a
17 random number, we would have ignored that because the
18 formula sets up that we go with the first spin, the
19 first trial, and I made a simplifying assumption, that
20 whatever we sold in the first year that they became
21 customers, that's what we sold for all of the remaining
22 years. There was no way for me to make a determination
23 that they would either buy more or buy less. That
24 would be an assumption on top of an assumption on top
25 of an assumption, so I determined my success rate

1 through a random number generator.

2 What this did was this gave me a 90 percent of
3 failure each year. I only had a ten percent chance
4 each year of making a sale until the year when I
5 actually make a sale and then that customer's tied in
6 with me for whatever that number of units is going
7 forward and so I thought a ten percent chance of
8 success was consequential, but it was significant, but
9 not substantial and I had a way of testing that when I
10 was all done with the model. That's -- I started with
11 that and I ended with it.

12 I said to myself I've got to figure out what a
13 success rate here is and given the way that financial
14 models set up in simulation, there's always a trial
15 that if a number is greater than something or less than
16 something or equal to something, something else happens
17 and that's what we did here.

18 If the random number matched the year of
19 entry, bang, we made a sale. The 90 percent chance of
20 failure covers those customers who bought the product,
21 but didn't continue, bought the product on a trial
22 basis and never bought again, and we will see when I'm
23 all done that many of the 37 customers we never make a
24 sale to, never made a sale to across the ten years.

25 So that's how I developed my success rate.

1 That's what gives me 123 units per year in 6 through
2 10. That is multiplied by the price selected by the
3 triangular distribution unit price, between 379.75 down
4 to 345. I don't show what it is here, but if you take
5 44,111 and divide by 123 units, you'll get the unit
6 price and I haven't done that calculation, but that's
7 how it would work.

8 So I'm simulating my success rate, which
9 generates through the triangular -- I'm generating my
10 success rate through a uniform distribution, which
11 generates a number of units sold from a triangular
12 distribution, which is then multiplied by a unit price
13 coming from a triangular distribution.

14 So now, I've got my -- and I do that for all
15 37 refineries and I do it 5,000 times and for
16 information purposes, if we go over to the left, down
17 about a third, it says simulated unit sales. The model
18 predicts that there would be 2,000 units in year 1,
19 3,887 in year 2, all of the way across. At the end of
20 year 10, we would be selling 13,244 units to these 37
21 refineries.

22 So I asked myself is that a reasonable number?
23 Well, we were currently selling close to over
24 15,000 units, I think 1,261 a month for Criterion times
25 12 is over \$15,000 -- over 15,000 units so I didn't

1 think -- I thought that 13,244 at the end of ten years
2 to be not even quite equal to what we were currently
3 selling Criterion was a reasonable number. Could it be
4 more? I suppose it could be, but the model said no,
5 based on these inputs and based on the ten percent
6 success rate per year -- I mean every year they go out
7 and call on a refinery, they have a ten percent chance
8 of making the sale. They don't get a sale, they go
9 back the next year and try again. Again, they have a
10 90 percent chance of failure and some of these
11 refineries, the model did not allow a sale to be made
12 at all over the ten years.

13 Now, how do I know that? Because we have
14 something here -- oh, there it is, on the right-hand
15 side where it says dollars, if we come down halfway in
16 the middle, it says market penetration and the first
17 number is 8.2 percent. We know from Exhibit 17 that
18 the greatest amount of sales that we could realize from
19 these 37 refineries, if they placed all of their needs
20 with us, with Packgen, would be the bottom number in
21 the right-hand corner of 17, \$9,367,000. If we had all
22 their business, that's the sales we would realize.

23 At the end of ten years, our sales are 4
24 million -- excuse me, simulated sales are \$4,789,257,
25 which is 51 percent of the total business that the 37

1 refineries could generate.

2 So if we're getting 51 percent in total and
3 our worst-case scenario is 50 percent of capacity, for
4 50 percent of the business they could send us, that
5 means that there's a number of refineries to whom we're
6 not selling.

7 Q. And just so we're clear, the 51 percent is if
8 this incident had not occurred, the product failure,
9 it's your opinion that Packgen would have had a market
10 penetration with these refineries of about 51 percent
11 at the end of ten years?

12 A. Yes.

13 Q. Now, your ten percent success rate that you
14 chose, did you quiz Packgen personnel as to what they
15 thought the success rate would be with these
16 refineries?

17 A. Oh, yes.

18 Q. What did Packgen personnel tell you?

19 A. A lot higher than ten percent.

20 Q. So they didn't agree with your ten percent?

21 A. No.

22 Q. Why did you go with the ten percent rather than
23 the number that Packgen believed would be these sales?

24 A. Well, first, they had no evidence to support
25 their feelings and I went with the ten percent success

1 rate because it got us to a point where we were selling
2 slightly less than what we are selling to Criterion and
3 it got us into the market -- by the end of ten years,
4 it got us 50 percent in.

5 You know, based on Mr. Berman's report and my
6 conversations with Mr. Lapoint, understand that the
7 refinery industry has been locked in to CHEP, C-H-E-P,
8 the flow of -- the company that rents the flow bins.
9 They had a monopoly on that market -- well, they have a
10 few minor competitors, but essentially a monopoly on
11 that market for the last 20 years. There's a lot of
12 inertia, there's a lot of -- what's the term Celeste
13 taught me -- coziness between CHEP and the refineries.
14 There's a lot of inertia. Even with the cost savings,
15 why should the refineries give their business to
16 Packgen.

17 I thought it was going to be a lot more
18 difficult to get to this number than the folks at
19 Packgen did, but it's, you know, saving these
20 refineries anywhere from 25 to 50 percent on their
21 catalyst moving costs. That's a significant savings
22 and so you have to balance that against the negatives
23 that I ran off and I thought that coming out at
24 13,000 units at the end of ten years and a 50 percent
25 market penetration, given that some of these refineries

1 wouldn't be buying from us at all, I thought that those
2 were reasonable expectations.

3 Q. And these refineries are only about 1/4th of the
4 North American refineries?

5 A. That's correct.

6 THE COURT: Why don't we take -- we've been
7 going for over an hour and a half, why don't we take a
8 15 or 20-minute recess.

9 MR. OLAFSEN: Thank you, Your Honor.

10 (Time noted: 10:46 a.m.)

11 (Recess called).

12 (Time noted: 11:08 a.m.)

13 THE COURT: Mr. Olafsen.

14 MR. OLAFSEN: Thank you, Your Honor.

15 BY MR. OLAFSEN:

16 Q. Mr. Filler, let's return then to Exhibit 13A.
17 You've explained the top left-hand side, unit sold, and
18 the top right-hand side, unit price. Let's move down
19 to about a third of the way down the page. Do you see
20 where it says less actual unit sales and less expected
21 unit sales?

22 A. Yes.

23 Q. Would you explain what those entries are.

24 A. Okay. Since lost profits starts with sales not
25 made, I have to take sales I expected to make and

1 subtract the sales I actually made to come up with
2 sales that I didn't make.

3 Packgen sold to these 37 refineries in 2000 --
4 calendar 2008, after the incident, 85 units, 2009,
5 95 units and 400 units in 20 -- 227 units and
6 557 units. In 2013, they sold 3,637 units to these 37
7 refineries, which is more than 25 percent of the 13,244
8 that the models said what these expected sales would be
9 at the end of the 10th year.

10 Q. Is that significant to you?

11 A. Yeah. It says to me that we are on our way to
12 mitigating our sales and we are on our way to
13 justifying the 13,244 number that the model threw off.
14 So that's the actual unit sales line.

15 And then the next line has to deal with -- it
16 says expected unit sales, but that's -- that's
17 mitigation that hasn't yet occurred, but is expected to
18 occur. The theory was that it would take a period of
19 time, anywhere from 4 to 5 to 6 years, for Packgen to
20 recover from the effects of the incident and get its
21 sales restored to where they would have been but for
22 the incident.

23 So the actual unit sales is mitigation and the
24 expected unit sales is future mitigation, so I'm
25 subtracting both of those numbers from the forecasted

1 unit sales to come up with the lost unit sales.

2 Q. How did you come up with the numbers for expected
3 unit sales?

4 A. I used a triangular distribution for the first
5 year and then modified it each year by a factor,
6 decreasing factor so that at the end of the 10th year,
7 my lost profits were \$41,000 or as close to zero as I
8 could get it.

9 Q. So by the end of the tenth year, your assumption
10 is Packgen is fully recovered from this particular
11 incident with respect to the refinery damages?

12 A. Yes.

13 Q. Next, on Exhibit 13A, we go to -- we skip a
14 couple lines down to cost. Do you see where the
15 material costs and the direct labor costs are?

16 A. Yes.

17 Q. Can you describe how you came up with those
18 numbers.

19 A. Yes. The most likely case of 99.52 for material
20 cost, \$3.18 for freight, \$11.90 for direct labor come
21 from Exhibit 20. That's -- those are the standard
22 costs and then to account -- as I said, those are ideal
23 costs and to account for the variability that is always
24 typical of a production line and freight costs, I made
25 it a triangular distribution by adding ten percent and

1 subtracting ten percent to account for something other
2 than the ideal cost, and I did that in consultation
3 with Mr. Lapoint and then I simulated those three costs
4 in the triangular distribution.

5 Q. The standard costs then, I gather, are different
6 for the refinery container then the CRI/Criterion
7 container?

8 A. Yes. The refinery container is larger, therefore
9 costs more to make.

10 Q. And after plugging in the cost through the
11 triangular distribution, we get then to allocated fixed
12 and incremental overhead costs.

13 A. Right and I followed the same procedure with the
14 37 refineries as I did for Criterion, except it's the
15 same variable cost of 11.11184, but it has a different
16 fixed cost because the sale -- average sales to the 37
17 refineries was different than the average sales for
18 Criterion.

19 Q. And is there an exhibit that shows your overhead
20 calculations for purposes of the refinery lost profit?

21 A. Yes. It's Exhibit 21.

22 Q. And is that exhibit basically applying the same
23 methodology that you did for Criterion to determine the
24 fixed and variable overhead?

25 A. Yes. I use 42.4 percent of the fixed overhead

1 for the 37 refineries, whereas for CRI/Criterion, I use
2 26.4 percent.

3 Q. And does the probabilistic model for the
4 refineries assume that revenues and costs are constant
5 throughout the ten-year period?

6 A. Yes because I'm using the same discount rate,
7 which is inflation adjusted, so it's a real discount
8 rate, not a nominal discount rate.

9 Q. Did you have the same reason for fixing revenues
10 and costs as you had previously described for the
11 Criterion damages?

12 A. Yes.

13 Q. Now, for the refineries, you also chose a damage
14 period of ten years; correct?

15 A. Yes.

16 Q. What did you base that on?

17 A. As I discussed with Mr. Lapoint, we thought it
18 would take, you know, five years for the effects to
19 wear off and five years to recover.

20 Q. The effects of what?

21 A. The effects of the incident.

22 Q. And the actual unit sales that you described a
23 few minutes ago, did you see evidence of that
24 happening?

25 A. Yes. While -- let's see, 13 -- well, 2011 got

1 up to 2,200, 2012 fell back to 557, 2013 jumped to
2 3,637 units. At that pace, we should get up to the
3 13,000 by the end of the tenth year. Now, maybe
4 because of 2012, if I was to redo this, maybe I would
5 make the damage period 12 years instead of ten, but it
6 is what it is.

7 Q. Do you feel that ten years of damages is
8 reasonable in this situation?

9 A. Yes.

10 Q. And is that based on your professional judgment?

11 A. Yes.

12 Q. Let's just identify for the record then the
13 actual unit sales. Is that Exhibit 19A?

14 A. 19A, yes. 19A is a spreadsheet that shows the
15 annual unit sales from 2008 through 2013 both in units
16 and dollars.

17 Q. And that's where the numbers in 13A come from for
18 actual unit sales?

19 A. Yes, and again that's for the 37 refineries.

20 Q. And with respect to the refinery damages, did you
21 also apply a discount rate?

22 A. Yes. I applied the same discount rate. Since I
23 had accounted for, by simulation, the specific risks
24 associated with the sales to the 37 refineries, that
25 the end result, that the lost profits would then again

1 be subject to the normal business risks that Packgen
2 suffers at the 23.35 percent weighted average cost of
3 capital discount rate.

4 Q. And after applying the discount rate and present
5 value factor, do you have an opinion to a reasonable
6 certainty as to the amount of damages Packgen suffered
7 relating to the listed refineries?

8 A. Yes. It's \$1,957,202.

9 Q. In this case, were you asked to make an
10 assumption about any aspect of causation?

11 A. Well, I was asked to assume that the cause of the
12 lost sales both to Criterion and to the 37 refineries
13 was a result of the incident, which is a result of the
14 failure of the defendant's product.

15 Q. And did this assumption fit with the evidence
16 you've seen in the case?

17 A. Yes. I saw the plaintiff's materials expert
18 report and that's the conclusion he reached.

19 Q. And with respect to Criterion, when you looked at
20 sales history, did you see evidence that the incident
21 had affected Criterion sales?

22 A. Well, sales ended the day of the incident. They
23 canceled the purchase orders for April and have never
24 placed another order.

25 Q. Now, you've been asked to assume that there was a

1 defective product that caused lost profits. Did you
2 also look for any other possible causes for why Packgen
3 lost revenue?

4 A. Yes, yes.

5 Q. What sorts of things did you look at?

6 A. Well, you know, did Criterion stop buying because
7 people stopped buying gasoline, was Congress passing a
8 bill saying that they couldn't use catalyst anymore,
9 you know, was there an environmental issue with the
10 reclamation of catalyst and the answers that I found to
11 those questions was no, there was no political, there
12 was no economic, there was no technical, there was no
13 social, environment, legal reasons why all of a sudden
14 Criterion would stop buying.

15 Q. Did you consider competition as part of your
16 analysis?

17 A. Well, yes, but this isn't like buying smartphones
18 or automobiles. There is not a multiplicity of
19 competitors. There's only CHEP and there is no other
20 player in the IBC market except Packgen. Nobody else
21 is making these polypropylene containers, so there's --
22 it was either Criterion went -- decided to go back to
23 CHEP, for which there is no evidence of any reason why
24 they would do that, there was nobody else to buy these
25 IBCs from except Packgen and so you throw your hands up

1 and you say competition I don't think plays a part
2 here.

3 Q. Has there been any changes during the last six
4 months in the competitive environment that Packgen was
5 operating in?

6 A. To the best of my knowledge, over the past six
7 years --

8 Q. Did I say six months?

9 A. Yes.

10 Q. I'm sorry, I meant to say six years.

11 A. I know what you meant. No new IBC manufacturer
12 has entered the marketplace. It's back to where it was
13 in 2002. CHEP has a monopoly on the market and is the
14 only one supplying bins for catalyst.

15 Q. You mentioned earlier that Packgen had told you
16 that with respect to Criterion, they had planned to
17 raise prices. Did you take that into consideration in
18 coming up with your opinions?

19 A. Well, I had originally run a probabilistic model
20 for Criterion taking into account the possibility of
21 raising prices, but I finally decided that since there
22 was no evidence of that, there was no supporting
23 documentation, it was just an expectation, enthusiastic
24 expectation from Mr. Lapoint, I dropped that model and
25 I have no opinion regarding a probabilistic model for

1 Criterion that includes raised prices.

2 Q. As you gathered evidence in this case, did you
3 become aware that there had been some other instance
4 involving these catalyst containers, or at least
5 predecessors of these catalyst containers?

6 A. Yes. As I understand it, somebody uses a
7 catalyst container for a purpose for which it isn't
8 intended, problems ensue and it's real easy to blame
9 Packgen for those problems, but my understanding is
10 Packgen wasn't at fault. It was the buyer of the
11 containers who misused them that caused the problem.

12 Q. Did you question Packgen on these issues?

13 A. Yes, I did.

14 Q. Did you reach a conclusion as to whether they
15 affected your damage calculations?

16 A. It did not.

17 Q. You did not reach a conclusion?

18 A. Well, I reached a conclusion that these incidents
19 had nothing to do with design problems or manufacturing
20 problems with Packgen's containers, that they were
21 being misused. People weren't either putting into them
22 things they were meant to hold or were using them
23 improperly.

24 MR. OLAFSEN: I have no further questions.

25 Thank you.

1 THE COURT: So Mr. Dunitz or Mr. Bixby, who is
2 doing the cross?

3 MR. DUNITZ: I will, Your Honor.

4 THE COURT: Mr. Dunitz.

5 CROSS EXAMINATION

6 BY MR. DUNITZ:

7 Q. Good morning, Mr. Filler and good morning, Your
8 Honor.

9 A. Mr. Dunitz.

10 Q. Mr. Filler, you do not have any statistics
11 credentials; do you?

12 A. No.

13 Q. Do you have an undergraduate degree in
14 statistics?

15 A. No.

16 Q. Graduate degree?

17 A. No.

18 Q. And you don't have a PhD degree; do you?

19 A. No.

20 Q. Are you accredited by the professional -- are
21 you an accredited professional statistician?

22 A. No.

23 Q. What is your education in statistics, Mr. Filler?

24 A. Well, more or less self-taught.

25 Q. So have you taken any college courses?

1 A. Yes.

2 Q. Which college courses are those?

3 A. I took Statistics 101. Got an A in it.

4 Q. And what's the extent of your self-education in
5 statistics?

6 A. Oh, lots of reading, lots of problem-solving,
7 lots of applications in my daily work. I've even -- I
8 even wrote a book on the application of statistics to
9 the --

10 Q. We will get to the book in a second, Mr. Filler.
11 Which books have you read; can you name a few of the
12 books you've read as part of your self-education?

13 A. Oh, half a dozen textbooks, you know, who
14 remembers the names of the authors. As I said, I've
15 got a library of half a dozen books on the application
16 of simulation modeling. I must have 25 books on
17 statistics, the use of statistics and I use it every
18 day.

19 Q. And you said you did some problems in the book?

20 A. Yes.

21 Q. Anybody check your work?

22 A. Well, if the book has a -- if you get the answer
23 that's in the back of the book, you know you've done it
24 right.

25 Q. Do you use statistics outside of litigation?

1 A. Yeah, yes.

2 Q. And what have you used it for?

3 A. Problem-solving.

4 Q. What kind of problem-solving?

5 A. Well, let me think back on that. Since most --
6 I'm sorry, since most of what I do has eventually --
7 well, I don't know how you put this. I sometimes -- I
8 use statistics all the time when I am hired by
9 insurance companies to help adjust business
10 interruption cases. Now, those don't wind up in
11 litigation, but I'm not a corporate controller, I'm an
12 independent CPA who works in the areas of business
13 valuations, business interruption claims and damages.
14 That's where I use statistics.

15 Q. And you mentioned that you have a book on
16 statistics?

17 A. Yes, I co-authored a book.

18 Q. What's the title of that book?

19 A. I believe it's the *Application of Statistics to*
20 *Commercial Damages*.

21 Q. Was that peer reviewed?

22 A. I don't know. I had three people read it, but I
23 don't know if Wiley had it peer reviewed. If they did,
24 they didn't tell me.

25 Q. Those three people that you had read it, those

1 were each accountants; correct?

2 A. Valuation analyst and commercial damages experts,
3 yes.

4 Q. None of them were credentialed statisticians;
5 were they?

6 A. No, but my co-author has a PhD.

7 Q. Mr. Filler, I was looking at your book yesterday,
8 actually, and I noticed in your acknowledgement you
9 thank Ms. Fannon for suggesting the book and reviewing
10 the introduction in the first six chapters; is that
11 correct?

12 A. Yes.

13 Q. Isn't it true, Mr. Filler, the suggestion your
14 book references was Ms. Fannon asking you to write a
15 chapter for her damages book?

16 A. Yes.

17 Q. Mr. Filler, is your writing in Ms. Fannon's
18 damages book?

19 A. No.

20 Q. And is that because it was rejected?

21 A. She sent it out to another statistician who had
22 some differences of opinion and she resolved that issue
23 by asking me to withdraw it, so I did.

24 Q. And that other statistician was a credentialed
25 statistician; is that correct?

1 A. I believe so.

2 Q. Do you know if it was Dr. Cowan?

3 A. No, I don't remember.

4 Q. And you have no prior experience in the petroleum
5 industry; is that correct?

6 A. Correct.

7 Q. Mr. Filler, at your deposition you testified
8 you've been excluded on two occasions; is that correct?

9 A. Yes. No, three occasions.

10 Q. At your deposition it was two; correct?

11 A. Yes.

12 Q. And those two cases we discussed were Downeast
13 Ventures versus Washington County and Clifford v. Case;
14 is that correct?

15 A. Yes.

16 Q. And in those cases, you were excluded because you
17 had insufficient facts and data; is that correct?

18 A. Yes.

19 Q. And did the insufficient facts and data result in
20 what's referred to as a hockey stick projection?

21 A. I don't know if you call it a hockey stick. It
22 resulted in a projection that wasn't supported by the
23 facts.

24 Q. And you just mentioned you'd been excluded a
25 third time since then?

1 A. Yes.

2 Q. What was the basis of that exclusion?

3 A. That was a case that went on for a long time and
4 every year, I would update my damages calculation to
5 account for the profit or loss business and so there
6 was more than one damages calculation and the court
7 said that it was a moving target and she wasn't going
8 to allow it.

9 Q. So in that case, you had multiple opinions?

10 A. Well, there was, you know, there was a damages at
11 the end of year 4, damage at the end of year 5, 6, yes
12 and --

13 Q. How many damages opinions did you render in that
14 case?

15 A. Well, I thought I was rendering one which was the
16 latest year, but the court took it upon itself to say
17 no, each one of those schedules stands by itself and
18 there's too many of them.

19 Q. And how many of those schedules were there, Mr.
20 Filler?

21 A. Probably three.

22 Q. Mr. Filler, Mr. Olafsen had a discussion today
23 about the new opinions you had recalculated, both the
24 CRI and Criterion; is that correct?

25 A. Yes.

1 Q. And those changes for CRI and Criterion and, in
2 part, for the refineries related to the weighted
3 average cost of capital; is that correct?

4 A. Yes.

5 Q. And that was due to a mistake you made in
6 calculating the figure; is that correct?

7 A. Yes.

8 Q. And did you find those mistakes by reviewing your
9 notes in preparation for today's hearing?

10 A. Yes.

11 Q. Mr. Filler, do you recall at your deposition you
12 indicated that you had no notes?

13 A. No, I didn't review my notes, I reviewed my
14 exhibits.

15 Q. The question was whether you reviewed your notes.

16 A. The answer is no, I did not review my notes. I
17 found the error by reviewing my exhibits.

18 Q. And do you have notes?

19 A. No.

20 Q. You also during the direct mentioned IBC; can you
21 tell the Court what IBC stands for?

22 A. I think it's industrial bulk container.

23 Q. And when you looked at the SIC code to establish
24 your weighted average cost of capital, did you look to
25 see whether there was a category for IBC?

1 A. IBC is the product. It's the manufacturing
2 process that puts Packgen into that -- in the opinion
3 of ICS. It's a sewn product.

4 Q. And what were the sewn products, the companies
5 that were in the SIC code that you compared Packgen to?

6 A. Any number of different companies. They, you
7 know --

8 Q. What did they manufacture, Mr. Filler?

9 A. Well, let's take a look. They made canvas
10 awnings, they made awnings, tents and awnings, canvas
11 products, canvas awnings, canvas products, canvas and
12 boat enclosures, stitching job shop, embroidery
13 services, promotional products, all businesses that
14 sew. NAICS doesn't necessarily have a category for
15 every business that exists.

16 Q. And those -- that was the closest you could find
17 for Packgen?

18 A. Well, that's the NAICS number that's on its tax
19 returns and I searched for something else and that was
20 it. That's where -- that's what they do. They sew,
21 they sew polypropylene.

22 Q. Now, you indicated in your direct that your
23 source of information were conversations with Mr.
24 Lapoint; is that correct?

25 A. Part of my information, yes.

1 Q. And the financials from Packgen; is that correct?

2 A. Yes.

3 Q. And you went to the plant and you measured the
4 material and you timed how long it took to make
5 catalyst Cougars; is that correct?

6 A. Yes.

7 Q. When you timed manufacturing a Cougar, was it a
8 fresh catalyst Cougar or spent catalyst Cougar?

9 A. Since they weren't selling to Criterion at the
10 time when I was up there, it had to be a spent catalyst
11 Cougar.

12 Q. But you don't know for sure?

13 A. The difference is one's a little bigger than the
14 other, but --

15 Q. Well, Mr. Filler, when did you learn of the
16 differences between a fresh catalyst Cougar and a spent
17 catalyst Cougar?

18 A. I don't know.

19 Q. You don't recall?

20 A. No.

21 Q. Was it before or after your deposition?

22 A. Might have been after. I don't recall.

23 Q. Mr. Filler, do you recall at your deposition that
24 I asked you questions about the differences between
25 fresh and a spent catalyst Cougar?

1 A. I'm sure you did.

2 Q. And do you recall when I asked what the
3 modification between the two were that you answered I
4 don't know what they were, that was why I was
5 attempting to capture that uncertainty -- that's why I
6 was attempting to capture what that uncertainty was by
7 using a triangular distribution.

8 MR. DUNITZ: Page 51.

9 A. If you read it, I must have said that.

10 Q. Well, let me give you a copy of your deposition
11 and your errata sheets.

12 MR. DUNITZ: If I may, Your Honor?

13 THE COURT: You may.

14 MR. DUNITZ: I have one for you as well.

15 BY MR. DUNITZ:

16 Q. You don't have any notes from that test because
17 you don't have any notes; is that correct?

18 A. Excuse me?

19 Q. Do you have any notes from when you were timing
20 the --

21 A. No, no. No notes.

22 Q. How long did you say you spent on the floor that
23 day?

24 A. Probably an hour.

25 Q. And you were measuring the material?

1 A. Yep.

2 Q. And counting --

3 A. Well, I was watching somebody else measure. I
4 didn't measure it myself.

5 Q. But that measurement went into your calculation;
6 is that correct?

7 A. No, no. All I was doing was corroborating the
8 numbers that were on the standard cost sheet.

9 Q. Well, in order to corroborate that, you would
10 have to know what numbers they came up with; is that
11 correct?

12 A. I had the standard cost sheet with me.

13 Q. So you just --

14 A. While I was on the floor.

15 Q. Okay. And so did you note any differences
16 between what they found and what was on the cost sheet,
17 on your cost sheet that you had with you?

18 A. No. I didn't find any substantial difference.
19 Whatever difference I found, I attributed to the
20 variability that you would expect to find for the
21 difference between an actual manufacturing process and
22 an ideal manufacturing process.

23 Q. Mr. Filler, you said that CRI was very involved
24 in the process of designing these Cougars; is that
25 correct?

1 A. Yes.

2 Q. And they came up to the facility?

3 A. Yes.

4 Q. When did you learn about that, Mr. Filler?

5 A. After my deposition.

6 Q. So then you didn't actually consider that when
7 you rendered your opinions; did you?

8 A. I didn't have that information at that time, no.

9 Q. So then you didn't use it to render your
10 opinions; is that correct?

11 A. Yes.

12 Q. And in fact, at your deposition you didn't know
13 whether the Cougars were designed by Packgen or anybody
14 else for someone else; is that correct?

15 A. I don't recall that, Mr. Dunitz. Can you show me
16 where I said that?

17 Q. Page 17, Line 6. Question: Do you know whether
18 the Cougars used for catalysts were designed by Packgen
19 or whether it was designed by someone else?

20 Answer: I don't know.

21 Question -- and this goes to the difference
22 between the two -- are there different Cougars for
23 catalyst paying customers? I think there are slight
24 modification to the Cougars for fresh catalyst versus
25 spent catalysts, but now you know that one was larger

1 than the other?

2 A. Right, yes.

3 Q. And how do you know that?

4 A. I know that Packgen designs them and customers
5 have input and --

6 Q. Thank you. Now, you said you had conversations
7 with Mr. Lapoint regarding all sorts of things;
8 technology, the economy. What else was involved in
9 your conversations with Mr. Lapoint?

10 A. Well, there were the general conversations that
11 any valuation analyst or damages analyst has with a
12 client. You know, you want to know about different
13 environments that they operate in.

14 Q. And did you talk about how often new technology
15 comes on the market?

16 A. That was one of the questions.

17 Q. And what was his answer?

18 A. That he was the only one with new technology in
19 20 years and that as far as he knew, there was nobody
20 else on the horizon that was going to enter the
21 marketplace and in six years, that hasn't happened.

22 Q. When was that conversation, Mr. Filler?

23 A. On one of the trips up there.

24 Q. Do you recall at your deposition when I asked you
25 about any research you did on how often technology

1 improved in the marketplace?

2 A. I didn't do any research. I spoke to Mr.
3 Lapoint.

4 Q. That's not doing research, Mr. Filler?

5 A. No, that's not what I call research. That's what
6 I call a management interview.

7 Q. Well, isn't that all part of the research for
8 reaching your opinion?

9 A. If that's the broad definition of research, then
10 I misspoke at my deposition.

11 Q. You said you were on the manufacturing floor for
12 about an hour when you timed the process?

13 A. I timed and I watched and I watched. It's a
14 fascinating process.

15 Q. The question though, Mr. Filler, you were on the
16 floor for about an hour?

17 A. Yes.

18 Q. How many shifts a day does Packgen run?

19 A. At that time they were running one.

20 Q. How many hours a day on that shift?

21 A. Eight.

22 Q. How many days a week did they run that shift?

23 A. Five.

24 Q. And 52 weeks a year?

25 A. I don't know whether they shutdown -- if they are

1 one of the factories that shuts down for two weeks in
2 the summer, I don't know, but it's either 50 or 52.

3 Q. Well, in analyzing costs, wouldn't knowing
4 whether they shutdown be an important factor to
5 figuring out annual costs?

6 A. I wasn't figuring out -- well, the answer is no
7 because I wasn't figuring out annual costs, I had the
8 standard cost sheet, which is the cost per unit.

9 Q. Mr. Filler, if you can take a minute to look over
10 what I've just handed you. Do you recognize that as a
11 copy of plaintiff's expert designation in this case?

12 A. Yes.

13 Q. And that's the document that designated you as an
14 expert; correct?

15 A. Yes.

16 Q. And we are putting together the exhibits so we
17 will have the full set, but I want to ask you some
18 questions about it first.

19 When you rendered your initial opinions in
20 this case, that was in 2012; correct?

21 A. Yes.

22 Q. Was it in May of 2012?

23 A. Yes.

24 Q. And at that time you essentially told Mr. Olafsen
25 your opinions and he took notes and drafted it; is that

1 correct?

2 A. Yes.

3 Q. Do you recall when you first read the expert
4 designation in this typed up written form?

5 A. No, I don't remember.

6 Q. When you first read it, did it contain Mr.
7 Rancourt's and Mr. Berman's opinion?

8 A. It didn't contain Mr. Rancourt's. It contained
9 Mr. Berman's.

10 Q. And is this the only -- well, how many versions
11 of it did you see?

12 A. One.

13 Q. Did you see any prior version of any other
14 opinions?

15 A. No.

16 Q. You've never spoke to Mr. Berman; is that
17 correct?

18 A. Correct.

19 Q. And it is safe to say that when you read your
20 opinion in this expert designation, that you had
21 essentially reached your conclusions; is that correct?

22 A. I don't think I made any changes after I read Mr.
23 Berman's designation.

24 Q. So you didn't read Mr. Berman's opinions until
25 after you had already rendered your opinions; is that

1 correct?

2 A. No, no. I had done my calculations. I didn't
3 change my calculations after I read Mr. Berman's
4 designation. Then we put my designation -- then I
5 said my designation was okay to go.

6 Q. But you reached your opinions before you read Mr.
7 Berman's designation?

8 A. Right, because I knew most of what he was going
9 to say anyway because I heard it and then I saw it
10 written.

11 Q. Where did you hear it from?

12 A. I heard it from -- some of it from Mr. Lapoint
13 and some of it from Mr. Olafsen and I wanted to know
14 was he going to say anything or write anything that was
15 contradictory to what I had already heard or opinions
16 that I was forming.

17 Q. In your analysis, we went over this a little bit
18 on direct, your analysis assumes that all of Packgen's
19 lost profits for CRI/Criterion and the refineries were
20 caused by Berry Plastics Corporation; is that correct?

21 A. That's what I've been asked to assume, yes.

22 Q. So Mr. Filler, if that assumption is inaccurate,
23 would that mean that your damages calculation is
24 inaccurate?

25 A. No, it's not inaccurate. They still lost those

1 profits. What -- as I said at my designation, if it's
2 not Berry Plastics, then there's some other cause. The
3 calculations are still correct.

4 Q. Well, Mr. Filler, if it was two different
5 defendants, how would we determine which defendant
6 caused how much of your lost profits analysis?

7 A. I don't know how you do that. That's not my job.

8 Q. Mr. Filler, you relied on Celeste Horton --

9 MR. DUNITZ: Is it Horton or Davis?

10 MR. OLAFSEN: Horton.

11 Q. You relied on Celeste Horton's notes to establish
12 that the 37 refineries were not purchasing Cougars; is
13 that correct?

14 A. Well, I relied on Mr. Lapoint's representation to
15 me of that fact and then it was corroborated by -- I
16 guess it was corroborated by Ms. Horton's notes.

17 Q. Did you ever speak with Ms. Horton?

18 A. No.

19 Q. So you don't know how she might interpret her
20 notes; do you?

21 A. Only from what I read in her deposition.

22 Q. So you also found out from Mr. Lapoint that the
23 reason those 37 refineries weren't purchasing from
24 Packgen was because of the CRI incident?

25 A. Yes.

1 Q. If you could turn to your deposition, Page 25,
2 Line 6. I asked you if you had spoken to any
3 refineries who indicated they delayed purchasing
4 products and your response was all you'd seen was
5 Celeste Horton's notes for each of the refineries as to
6 the problems she was having making sales.

7 A. Yes.

8 Q. And Line 15 you said well, there were constant
9 references back to the Criterion incident and remarks
10 like they want to wait and see and so on and so forth;
11 is that correct?

12 A. Yes.

13 Q. And then Mr. Lapoint confirmed for you that that
14 meant the damages related to the Berry incident?

15 A. Yes.

16 Q. Do you recall in Ms. Celeste's notes there being
17 references to faulty material?

18 A. Probably, yes.

19 Q. And is that the Berry material?

20 A. Probably.

21 Q. And if it turns out that that's not the Berry
22 material or that you misinterpreted her notes, wouldn't
23 your damages calculations for the refineries be
24 inaccurate?

25 A. It might be, might be for that particular

1 refinery, but I don't -- I don't know what she meant
2 by that.

3 Q. Well, Mr. Filler, your damages of -- they are
4 just now 1.95 million regarding the refineries. That's
5 not broken down by refinery; right?

6 A. No, it's a composite number.

7 Q. So if one or two of the refineries had a
8 different reason for purchasing it, we wouldn't know
9 how to back that out of the 1.9; would we?

10 A. Sure we could. We'd just eliminate those two
11 refineries and rerun it.

12 Q. But Mr. Filler, that's not what your opinion is
13 for those 37 refineries; right?

14 A. Excuse me, I --

15 Q. You issued a composite for the 37 refineries, not
16 an opinion for each of the refineries.

17 A. Correct.

18 Q. So if a portion of those refineries are not
19 caused -- their reason for not purchasing was not
20 Berry, then the 1.95 million is inaccurate; is that
21 correct?

22 A. Yes.

23 Q. Thank you. Mr. Filler, you used a ten-year term
24 for both CRI/Criterion and for the refineries; is that
25 correct?

1 A. Yes.

2 Q. And you did not base the ten-year period on any
3 market survey; did you?

4 A. I don't know how a market survey would apply or
5 what you mean by a market survey.

6 Q. Well, that would be a survey finding out why
7 companies weren't purchasing, how long they would wait
8 until the issue passed?

9 A. Oh, you mean did I call any of the refineries and
10 ask them what was going on? No, I did not.

11 Q. Now, Mr. Filler, your basis for the ten-year
12 period is basically Mr. Berman's designation,
13 conversations with Mr. Lapoint and conversations with
14 Mr. Olafsen; is that correct?

15 A. And seeing the recovery that was going on with --
16 well, the recovery that was going on and the expected
17 recovery, yes.

18 Q. Mr. Filler, have you spoken with any of the
19 refineries that are now purchasing Cougars?

20 A. No, I haven't.

21 Q. Are you aware of anybody who has?

22 A. Well, I'm sure Mr. Lapoint and Ms. Horton have.

23 Q. Have you discussed it with them?

24 A. No.

25 Q. Mr. Filler, are you familiar with the phrase

1 correlation is not causation?

2 A. Yes.

3 Q. In fact, you've written that; haven't you?

4 A. Yes.

5 Q. So now you're telling us that the fact that these
6 refineries are purchasing is because it's blown over,
7 but you don't know why they are purchasing; isn't that
8 true?

9 A. No, I don't know why they are purchasing, but
10 they are.

11 Q. You don't know why they are purchasing; isn't
12 that correct?

13 A. Only to the extent of conversations with Mr.
14 Lapoint and Ms. Horton's deposition.

15 Q. Correlation is not causation; correct, Mr.
16 Filler?

17 A. Yes.

18 Q. The fact that they weren't buying, other than the
19 notes that you have from Celeste Horton?

20 A. Yep.

21 Q. And Mr. Berman opined that catalyst would
22 increase 3 to 5 percent for the next six years; is that
23 correct?

24 A. Correct.

25 Q. So Mr. Berman didn't say anything about how the

1 petroleum industry would operate for ten years; did he?

2 A. He didn't say how they operate for ten years, but
3 at this point in time -- when he wrote that in 2012,
4 six years would take you to the end of the ten-year
5 period.

6 Q. Six years would take you to the end of the
7 ten-year period?

8 A. Yes. The incident was in 2008. Mr. Berman wrote
9 his opinion in 2012 and said for the next 5 to 6 years,
10 this is what it's going to be. Well, six years takes
11 you to the end of the ten-year period. That's what I
12 assumed he was referring to.

13 Q. And that was an increase of 3 to 5 percent; is
14 that correct?

15 A. Right because the oil that's being refined is
16 dirtier than it used to be. They have to pump in --
17 they have to put in more catalyst --

18 Q. I just asked what the percentage was.

19 A. Excuse me?

20 Q. I just asked what the percentage was; it was 3 to
21 5 percent?

22 A. Yes, I was explaining why. Yes, that's what he
23 wrote.

24 Q. Mr. Filler, you're aware that Packgen doesn't
25 have any patents on the Cougars; aren't you?

1 A. Yes, I'm aware of that.

2 Q. And did you consider the fact that there are no
3 patents on those Cougars when you determined a ten-year
4 term would be appropriate?

5 A. Yes. I considered that there were no patents, I
6 felt that given that, as Mr. Berman said, Packgen has
7 an excellent market presence and expertise, that the
8 chances of somebody else coming in with a similar
9 product and push Packgen out was remote.

10 Six years have gone by, it hasn't happened.
11 Mr. Lapoint tells me that he hasn't heard anything
12 about anybody else coming into the market. His own
13 opinion was that his -- his barriers -- the barriers
14 to entry that he had set up with his expertise was more
15 than enough to offset the lack of patents.

16 Q. Mr. Filler, how long has CHEP been in business;
17 do you know?

18 A. According to Mr. Berman's report, they had this
19 monopoly for about 20 years.

20 Q. And are you aware, having read Mr. Berman's
21 designation, that CHEP is an aggressive competitor?

22 A. Yes.

23 Q. You don't know who the other competitors are in
24 this market though; do you?

25 A. He mentions that CHEP has one or two other

1 competitors, but it's flow bins. Right now, there is
2 nobody else except flow bins and Packgen that's in the
3 market.

4 Q. And Mr. Filler, your total lost profits damages
5 at this point estimate is, I believe, over \$7 million;
6 correct?

7 A. Yes.

8 Q. That's for a ten-year period; correct?

9 A. Correct.

10 Q. So the opportunity to earn 10 million or
11 \$7 million of profit in a ten-year term on a product
12 that's not patented and you think that no competitor,
13 particularly a competitor like CHEP, is considering
14 even entering this market unless -- before the ten-year
15 period expires?

16 A. CHEP's in the market with its flow bins.

17 Q. Well, according to you, Mr. Filler, these are so
18 -- the Cougars are so cheap that they're going to take
19 over the market; isn't that correct?

20 A. No, they're not going to take over the market.

21 Q. Well, you estimated that they would have at least
22 51 percent of those 37 refineries; didn't you?

23 A. Yes. That's not taking over the market. Of the
24 total market, Packgen would have on spent catalyst
25 maybe less than four percent and on fresh catalyst,

1 less than three percent. Very small, very small
2 player.

3 Q. Mr. Filler, do you know whether the number of
4 operating refineries in North American trended up or
5 down over the last ten years?

6 A. I don't know, but if I had to guess, I would say
7 it was constant.

8 Q. That would be a guess?

9 A. That's a guess.

10 Q. Mr. Filler, if you would look at Exhibit 13A.
11 That's your current lost profits for the refineries; is
12 that correct?

13 A. Yes.

14 Q. And just look at the actual sales line.

15 A. Yes.

16 Q. And there are 420 actual sales of Cougars; is
17 that correct?

18 A. Which starts with Line 5?

19 THE COURT: Where are we now, Mr. Dunitz?

20 MR. DUNITZ: Exhibit 13A.

21 THE COURT: Yes.

22 MR. DUNITZ: The line that deals with the
23 actual sales of Cougars. It's in the upper left.

24 A. What's the first number, 85?

25 Q. No, I asked what it was in 2010.

1 A. Well, help me get oriented here. Is the number
2 in the first column 85?

3 Q. Yes.

4 A. All right, that's 8, 9, 400.

5 Q. And then it reached about 2,200 in 2011; is that
6 correct?

7 A. Yes.

8 Q. 557 in 2012; is that correct?

9 A. Correct.

10 Q. And over 3,600 in 2012; is that right?

11 A. Right.

12 Q. Now, it went down 12 -- actually went down about
13 1,700 between 2011 and 2012; is that correct?

14 A. Yes.

15 Q. And you attributed all 1,700 in the difference to
16 the Berry product; didn't you?

17 A. Yes.

18 Q. And it's three years after Packgen stopped using
19 the Berry product; isn't it?

20 A. Yes.

21 Q. So if it dropped 1,200 three years after the
22 product wasn't being used anymore, how is that
23 attributable to Berry, Mr. Filler?

24 A. Very simple. Somebody buys them, uses them,
25 likes them and then somebody else in the company says

1 whoa, you know, don't buy that stuff anymore, we heard
2 about this product failure, we don't want you to buy
3 them.

4 Q. And you spoke to somebody --

5 A. No, I'm just giving you a reasonable explanation
6 why something like that would happen.

7 Q. You're guessing; is that correct, Mr. Filler?

8 A. I'm not guessing, I'm giving you an answer.

9 Q. It's a guess; isn't it, Mr. Filler?

10 A. It's an estimate.

11 Q. But you have no evidence to support that those
12 1,700 drops were attributable to Berry? Evidence, Mr.
13 Filler.

14 A. That's right. There's no evidence in the
15 opposite direction either.

16 Q. Mr. Filler, this is exceeding even your original
17 projection; isn't it?

18 A. A little bit, yep. That's the random nature of
19 the calculations.

20 Q. Now, Mr. Filler, you base a ten-year term for
21 CRI/Criterion on six months of sales; is that correct?

22 A. Well, six months of sales in this program, but we
23 also have to remember that they've been selling to
24 Criterion since 2003.

25 Q. You didn't consider those sales in your analysis;

1 did you, Mr. Filler?

2 A. I -- I didn't consider them in the calculations,
3 but I considered them as to background information as
4 to the longevity of the relationship.

5 Q. Mr. Filler, isn't it true that you have
6 absolutely no evidence that that six monthly trajectory
7 would continue?

8 A. That's true. I also have no evidence that it
9 would stop. I went with what was.

10 Q. But you have no evidence that that was going to
11 continue?

12 A. I have no evidence that it wouldn't.

13 Q. Mr. Filler, are you aware of any contracts
14 between CRI/Criterion that would require ten years of
15 purchase?

16 A. No.

17 Q. Mr. Filler, were you aware of any other prior
18 problems in the CRI/Criterion relationship with Packgen
19 prior to the alleged incident?

20 A. I don't know if I read an e-mail or conversations
21 were relayed to me. When Criterion doubled their
22 orders starting in October of 2007, it kind of caught
23 Packgen a little bit by surprise and there was some
24 management issues about getting up to speed to service
25 the account. There was some late shipments that caused

1 some friction, but that all got straightened out. That
2 was all part of the normal customer supplier
3 relationship and by the time of the incident,
4 everything was working just fine.

5 Q. That's the only issue in their relationship that
6 you're aware of?

7 A. That's all that I'm aware of.

8 Q. And if there were issues in the relationship, it
9 would be important for how long you would project your
10 damage analysis; wouldn't it?

11 A. It depends on what the issues are. If they're
12 just everyday, you know, complaints and everyday
13 friction, you know, they had been buying for years.
14 They were invested in this project. They wanted this
15 stuff.

16 I was -- at my deposition I said enthusiastic
17 e-mail, I misspoke. It was enthusiastic phone calls
18 with Mr. Lapoint that made him think that they were
19 going to double the orders again that they were so
20 happy with it.

21 Q. You misspoke at your deposition?

22 A. Yes.

23 Q. Did you see -- did you put that on your errata
24 sheet that it was a phone call, not an e-mail?

25 A. I don't think I found that out at that time.

1 Q. No, didn't find it out at that time, you didn't
2 know whether it was a call or an e-mail?

3 A. I thought it was an e-mail and so when I went
4 through my deposition, I didn't make the change. I
5 found out since then that it wasn't an e-mail, it was
6 phone calls.

7 Q. Mr. Filler, you used a sales projection method,
8 is that what you testified to, for CRI/Criterion?

9 A. Yes.

10 Q. Mr. Filler, isn't it true that you didn't make
11 the choice to use the sales projection method?

12 A. I don't understand the question.

13 Q. Mr. Filler, isn't it true that you were told to
14 use the sales projection method?

15 A. Still don't understand the question.

16 Q. Mr. Filler, was it your choice to use the sales
17 projection method for CRI/Criterion?

18 A. Yes.

19 Q. You weren't asked by someone else to do that?

20 A. No.

21 Q. Mr. Filler, could you turn to Page 20 of your
22 deposition. I'm sorry -- no, it's Page 20, Line 18.

23 Now, you applied, in part, what you called a
24 deterministic model, is that correct, and your
25 deterministic model is your sales projection; is that

1 correct?

2 A. Yes.

3 Q. And you answered yes. And I asked you how you
4 define it and you said there's no probabilities
5 involved. If you would skip to the top of 21, I said
6 why did you choose the deterministic model and your
7 answer was because Mr. Olafsen asked me to. Did you
8 give Mr. Olafsen different types of models that you
9 could use or did he specifically call and ask that you
10 use a deterministic model? You said I prepared a
11 stochastic model, he asked me also to do a
12 deterministic model.

13 A. Yes.

14 Q. So your original plan was to do the stochastic
15 model; is that correct?

16 A. First of all, it's -- that's a mis -- somebody
17 misspelled that. It's -- no stochastic -- let's back
18 up a second here. You asked me if somebody told me to
19 use the sales projection method. The answer to that
20 question is no because the sales projection method can
21 use a probabilistic or stochastic model or it can use a
22 deterministic model.

23 I prepared a sales projection method using a
24 stochastic methodology and then Mr. Olafsen asked me to
25 also use -- using the sales projection method again,

1 but this time he said please make it a deterministic
2 model. So there's some confusion here between sales
3 projection method and stochastic and deterministic.
4 They're two different things.

5 Q. But initially, all you did was the simulation; is
6 that correct?

7 A. Correct.

8 Q. And then when Mr. Olafsen asked you to do the
9 deterministic model, you did that for him; is that
10 correct?

11 A. I did, yes.

12 Q. And now, it's my understanding you're no longer
13 using your simulation opinion for CRI/Criterion, you're
14 using the one that Mr. Olafsen asked you to do; is that
15 correct?

16 A. Yes. I -- you know, I decided to drop the
17 simulation model and the reason --

18 Q. You decided to drop the one that you initially,
19 as the expert, chose as the model to use?

20 A. Yes. I dropped it, yes, and I dropped it because
21 I couldn't get any supporting evidence for the price
22 change. I mean I can change my opinion before I file
23 my report.

24 Q. But you actually filed your report with both of
25 those methods; didn't you, Mr. Filler?

1 A. Yes.

2 Q. And when did you decide only to use the
3 deterministic model, Mr. Filler?

4 A. After my deposition.

5 Q. How long after your deposition, Mr. Filler?

6 A. Well, my deposition was --

7 Q. In August of 2012, sir.

8 A. August of 2012? Oh --

9 Q. Mr. Filler, would it helpful to you if I --

10 A. I don't remember.

11 Q. -- if I represented to you that Mr. Olafsen
12 informed us last week that you were now only using the
13 deterministic model?

14 A. Yes.

15 Q. So you decided within the last couple of weeks?

16 A. I might have decided earlier. I can't be
17 responsible for when he told you.

18 Q. Now, why did you originally opt to use a
19 statistical model?

20 A. I opted to use the stochastic model for Criterion
21 mainly because there was a question about the increase
22 in price and I wanted to model that.

23 Q. Didn't you also testify at your deposition when I
24 asked you about using statistical models that you use
25 it only when there's insufficient data, insufficient

1 historical data?

2 A. That's one reason you would use it, yes, but as I
3 testified this morning, if you've got a future
4 contingency, it's also appropriate to use a stochastic
5 model with historical data.

6 Q. The Cougars that were purchased by CRI were fresh
7 catalysts, not the spent ones for refineries; right?

8 A. Yes.

9 Q. And unlike the spent catalyst Cougars sold to
10 refineries, you don't have any mitigating sales; is
11 that correct?

12 A. Correct. My testimony was the relationship was
13 destroyed.

14 Q. Are there other fresh catalyst producers?

15 A. I'm sure there are, but I don't know the answer
16 to that.

17 Q. Could you have done a simulation for fresh
18 catalyst producers that would have determined what the
19 mitigating sales would have been?

20 A. I suppose I could have.

21 Q. The fact that you didn't, you're assuming that no
22 other fresh catalyst manufacturer would use the
23 Cougars?

24 A. Based on what happened at Criterion, and again,
25 referring back to Mr. Berman's designation about how

1 everybody knows everybody, once things blew up at
2 Criterion, I don't think any other fresh catalyst
3 manufacturer would come near Packgen.

4 Q. But the refinery -- you thought the refineries
5 would.

6 A. Different market.

7 Q. But you didn't even attempt to determine whether
8 there would be mitigating sales though; did you?

9 A. No, I didn't.

10 Q. And you could have done a simulation just like
11 you did for the refineries; correct?

12 A. If I had the data. If I had that information.

13 Q. Did you attempt to get that information?

14 A. No.

15 Q. And was it your decision or was it the
16 plaintiff's decision not to calculate mitigating sales
17 for the fresh catalyst Cougars?

18 A. It was my decision because I had no information
19 about mitigating sales. Nobody at Packgen came forth
20 and said well, we're going to turn to CRI's competitors
21 and start selling to them.

22 Q. So you relied solely on Packgen then?

23 A. Yes.

24 Q. And Mr. Filler, according to you through, I
25 guess -- according to Mr. Lapoint, the benefit of these

1 Cougars is that they would save thousands of dollars;
2 is that correct?

3 A. Yes.

4 Q. So wouldn't a competitor of Criterion have a
5 competitive advantage if they were able to purchase a
6 cheaper product in flow bins?

7 A. Sure, but as I said, you know, who would want to
8 take a chance based on what happened?

9 Q. Well, I guess you could have done the market
10 survey; couldn't you?

11 A. I would have assumed that that's the first thing
12 that Mr. Lapoint would have tried to do once Criterion
13 was out of the picture was try to sell to one of their
14 competitors based on the same cost advantages that he
15 had --

16 Q. Did you ask Mr. Lapoint whether he had?

17 A. No, I just assumed that --

18 Q. Were there any market survey of the other fresh
19 catalyst Cougars saying that -- other fresh catalyst
20 producers saying that they would not purchase these?

21 A. No, no. We don't have -- I don't have that
22 information.

23 Q. Did you attempt to get that information?

24 A. No.

25 Q. Because you relied solely on Packgen?

1 A. Right.

2 Q. You didn't feel that your obligation as an expert
3 calculating lost profit damages to find out whether
4 there were potential mitigating sales, you just relied
5 on Packgen?

6 A. Well, I wouldn't know if there were potential
7 mitigating sales. It's Packgen that's making the
8 sales.

9 Q. Did you ask them?

10 A. No, I did not ask them.

11 Q. Thank you. Now, Mr. Filler, if you could look at
12 Exhibit 1A. I believe it's 1A.

13 We talked earlier about how you arrived at
14 your costs; correct?

15 A. Yes.

16 Q. You went to Packgen on at least two occasions to
17 observe the process, measure the product, talk to the
18 people there; is that correct?

19 A. Yes.

20 Q. To double-check their standard costs; is that
21 correct?

22 A. Yes.

23 Q. But you averaged the material costs, the freight
24 and the direct labor costs; is that correct?

25 A. Yes.

1 Q. You couldn't determine what those were?

2 A. I knew what they were. As I testified earlier,
3 those costs were ideal costs, right? Ideal and we know
4 that any manufacturing process has variation. I needed
5 to account for that variation. If the costs for
6 materials was supposed to be, for instance, \$56.63,
7 there is no way that every single unit that comes off
8 that line is going to have a material cost of \$56.63.
9 There is going to be some variation and I wanted to
10 account for it.

11 Q. And I believe you earlier said that those were
12 six-months -- those were based on the six months of
13 the sales, the standard costs?

14 A. No, no. The standard costs are calculated on an
15 intermittent basis as Packgen deems necessary. It's
16 like it's a snapshot in time. It's that -- in fact,
17 it's that day's costs.

18 Q. Do you recall how far back you went for the
19 freight costs that you averaged?

20 A. I think we had a number of years.

21 Q. So you used the costs for a number of years, but
22 you only used the sales for six months; is that
23 correct?

24 A. Yes, because the freight costs are a function of
25 distance, not a function of time.

1 Q. So they don't go up and down over time?

2 A. Well, they did, that's why I took an average.

3 Q. Did you actually take an average, Mr. Filler?

4 A. I took the high and the low.

5 Q. Is that an average, Mr. Filler?

6 A. It can be. It's a midpoint.

7 Q. And the average that you had for costs, is that
8 an average?

9 A. Well, if you had two numbers together and divide
10 by two, you get an average.

11 Q. Are each of the numbers in your average -- are
12 either of the numbers in your average themselves an
13 average?

14 A. No. Well, that's hard to say. Yes, I think they
15 are an average.

16 MR. DUNITZ: Your Honor, before I forget,
17 could we mark the designation with a defense exhibit
18 sticker?

19 THE COURT: I'm sorry, are you talking to me?

20 MR. DUNITZ: Can we mark his designation with
21 the original exhibits rather than the -- we already
22 have the changed exhibits, but he -- actually, I would
23 like to have the originals --

24 THE COURT: Is this a new packet of --

25 MR. DUNITZ: The packet that I just handed

1 you, I believe -- I'm sorry, I didn't mean to hand you
2 1A. My apologies, Your Honor. I handed the wrong
3 package to you.

4 THE COURT: That's all right. Thank you. So
5 did you want some of these exhibits marked?

6 MR. DUNITZ: I would ask if we could mark --
7 those exhibits are the exhibits to the original
8 designation. Those are his original opinions so those
9 should be attached to the designation. It would
10 probably be easiest if we can mark that whole packet as
11 one exhibit.

12 THE COURT: Okay. So the designation would be
13 marked as Berry Number 1?

14 MR. DUNITZ: Yes, Your Honor.

15 THE COURT: Okay. And those will contain all
16 of the exhibits which are 1 through --

17 MR. DUNITZ: I believe it's 22.

18 THE COURT: 22?

19 MR. DUNITZ: Actually, I think it's --

20 MR. OLAFSEN: The original has through 24,
21 Your Honor. The last two are the catalyst experts so
22 that's why those have not been marked and admitted, but
23 if he is marking the whole designation --

24 THE COURT: I'm sorry, you are right. It's
25 24. So 1 through 24?

1 MR. DUNITZ: Yes, Your Honor, thank you.

2 THE COURT: And those are all subdivisions of
3 Berry Number 1 which is the designation.

4 BY MR. DUNITZ:

5 Q. Mr. Filler, if you could turn to --

6 THE COURT: So do you have any objection to
7 those?

8 MR. OLAFSEN: No. I just wanted to be clear
9 what was marked. So it is the whole designation as
10 well as exhibits?

11 MR. DUNITZ: Correct.

12 THE COURT: Exactly, right. Each is admitted.

13 BY MR. DUNITZ:

14 Q. Mr. Filler, if you can turn to Exhibit 4 to your
15 designation. Is that where you got the average for one
16 of the numbers in your material costs?

17 A. Hold on, I think we got a problem here. Are you
18 talking 4 of what you just handed me?

19 Q. Yes.

20 A. Well, I've got 1A, 10A and then I've got a tax
21 return and a financial statement.

22 MR. DUNITZ: I'm sorry, I handed you the wrong
23 ones as well. My apologies.

24 THE COURT: That's all right.

25 BY MR. DUNITZ:

1 Q. Let me hand you Exhibit 4 and we will get you
2 together another set to make sure you have the correct
3 documents.

4 Is that Exhibit 4 where you've got the average
5 for your material costs, Mr. Filler?

6 A. Yes.

7 Q. And why did you average that rather than
8 determine which one was the actual cost?

9 A. I didn't average it. This isn't my worksheet.
10 This is Packgen's worksheet.

11 Q. Did you determine which of those costs was the
12 accurate costs?

13 A. They told me to use the average.

14 Q. They told you to use the average?

15 A. Yes, because that's what they were working with.

16 Q. Did you check to see if the average was accurate
17 or you just did what Packgen told you to do?

18 A. Well, when I, you know, went up there and watched
19 the manufacturing process, this is what I was testing.
20 When I reviewed the bill of materials against the
21 invoices, that's what I was testing.

22 Q. And when you tested it, did you determine which
23 one was accurate?

24 A. Well, the difference is -- there's no difference
25 in labor, 15.45 a unit. There is a 30 cent difference

1 in freight and there is a \$4 difference in materials
2 for an average of \$66.76, right. So whatever I
3 observed came pretty close to the average.

4 Q. And you also averaged labor; is that correct?

5 A. Yes, but there is no difference in the two
6 columns for labor. Well, wait a minute, what are we
7 talking about? Are we talking about 13A or talking
8 about 4?

9 Q. We are talking about 4.

10 A. Yeah, okay, with 4, there is no difference in the
11 labor. It's \$15.45 for each column.

12 Q. If you look at Page 2 of Exhibit 4, Mr. Filler.

13 A. And the labor's \$8.60 for each column. There's
14 no difference in the two columns. The average is the
15 same in each column.

16 Q. Turning to your calculations, I believe you said
17 at your deposition they can make three Cougars a
18 minute; is that correct?

19 A. Yes.

20 Q. And three Cougars a minute, that's 180 units an
21 hour; is that correct?

22 A. No, no, that's 20 Cougars an hour; isn't it?

23 Q. You said at your deposition -- you testified it
24 was three per minute; is that correct?

25 A. That's -- no, if that's what I said, that's

1 wrong. It's one every three minutes.

2 Q. Mr. Filler, if you can look at Page 39 of your
3 deposition and I understand that you now believe that
4 it was one every three minutes, but in your deposition,
5 you did testify that it was probably close to three a
6 minute. That's at Page 39, Line 11; is that correct?

7 A. Yes. Three a minute, making one a minute. I
8 misspoke. I got confused.

9 Q. Do you have your -- I believe I handed you your
10 errata sheet, Mr. Filler, when I gave you your
11 deposition.

12 A. Yes.

13 Q. Mr. Filler, if you look at Page 39, Line 11 --
14 well, line 10, I said -- I asked you how much were they
15 producing in 2007? You said probably close to three a
16 minute. In your errata sheet you changed it from three
17 to one a minute saying that you had misspoke.

18 So after you had time to reflect after your
19 deposition, you thought it was one a minute; is that
20 correct?

21 A. That's right.

22 Q. And now you think it's one every three minutes?

23 A. It keeps changing.

24 Q. Well, it does, Mr. Filler, that's part of the
25 problem. It keeps changing with your testimony. I'm

1 trying to find out what the number is.

2 A. Well, the costs keep going down, right? On
3 Exhibit 4 --

4 Q. Mr. Filler, I'm just trying to find out how many
5 they make -- what the production time is, Mr. Filler.

6 At your deposition you said three, you changed
7 it to one or they changed 2000 to one a minute and
8 still said that it was three a minute after the big
9 change in 2008 and now I think you said that it was one
10 every three minutes.

11 A. That's what I meant to say. One every three
12 minutes.

13 Q. And when you read your deposition and saw the one
14 per minute --

15 THE COURT: Three.

16 BY MR. DUNITZ:

17 Q. Three per minute, you changed it to one per
18 minute and you didn't change it to one an hour or --

19 A. No. No, I should have changed it to one every
20 three minutes instead of one a minute.

21 Q. And now it's -- how many do they make now per
22 minute or how many -- I mean what is the production --
23 excuse me.

24 A. It probably takes somewhere between three and
25 four minutes to make a Cougar.

1 Q. Probably?

2 A. Right, because I haven't been up there in three
3 years.

4 Q. At the time you were there, how much time did it
5 take? How much time did it take?

6 A. Three to four minutes.

7 Q. Mr. Filler, when you testified on direct, you for
8 the first time testified that you viewed this as
9 destruction of part of the business; is that correct?

10 A. Destruction of the customer relationship, yes.

11 Q. How do you calculate the destruction of the
12 business?

13 A. Well, the measure of damages is the value of the
14 business just prior to the incident.

15 Q. And did you calculate that on the basis of tax
16 affected earnings?

17 A. Sure. If you're valuing a business, yes, but
18 this is lost profits and lost profits are always
19 calculated on the before-tax basis.

20 Q. But you did your term, you viewed it ten years
21 because you thought it was -- they destroyed the
22 business, that section of the business?

23 A. Right. What I was doing was applying that part
24 of the theory that says that you can calculate the
25 economic benefit stream out to infinity, therefore the

1 ten-year cutoff captures 90 percent of that amount and
2 so the ten years is a standard rule of thumb and is not
3 unreasonable.

4 Q. Mr. Filler, you're familiar with the reasonable
5 certainty standard for lost profits and damages in
6 Maine; are you not?

7 A. Yes.

8 Q. How do you define reasonable certainty?

9 A. Greater than 50 percent.

10 Q. What?

11 A. Greater than 50 percent.

12 Q. Reasonable certainty is greater than 50 percent?
13 When you render your opinions on lost profits, you
14 always strive to do your most accurate work; is that
15 correct?

16 A. I try.

17 Q. And your goal in using those best efforts is to
18 provide your client with a lost profits opinion that's
19 reasonably certain; is that correct?

20 A. Yes.

21 Q. I understand that you've now narrowed your
22 opinion on lost profit damages for CRI/Criterion to one
23 number, but during the course of this case, you opined
24 eight different numbers for Packgen's lost profits that
25 you relate to CRI/Criterion; is that correct?

1 A. I don't know.

2 Q. You don't know? How many numbers have you
3 offered? Is it your standard practice to offer eight
4 different opinions on damages?

5 A. Well, if I make mistakes and I catch those
6 mistakes, I correct them and I offer a new conclusion
7 of loss.

8 Q. Could you just take a few minutes, I want to go
9 through all of your opinions so we can see how you
10 finally got to your one opinion.

11 (Discussion off the record between counsel).

12 Mr. Filler, Exhibit 1 to your original designation
13 is your deterministic model that accompanies your
14 opinion; is that correct?

15 A. Yes.

16 Q. And that lost profits amount was \$6,141,335; is
17 that correct?

18 A. Yep.

19 Q. And that was because you based it on \$225 per
20 unit; is that correct?

21 A. Yes, and a risk adjusted discount rate of 22 and
22 a half percent.

23 Q. We will get to that, but the reason that was --
24 the main reason it was that price was -- that amount
25 of lost profits is it was \$225 per unit; right?

1 A. Correct.

2 Q. And there was no evidence that Packgen ever sold
3 it to Criterion for 225; was there?

4 A. No, there wasn't.

5 Q. You just took Packgen's word for it; is that
6 correct?

7 A. We had conversations about the imminence of a
8 price raise so in that he was going to get two and a
9 quarter so I ran the model that way.

10 Q. Were you aware of any objection by Criterion to
11 prior price changes?

12 A. I think there was something about a \$2 increase
13 when they were buying them at \$85, but there was no
14 objection when the price changed from a hundred to 200.

15 Q. Now, Mr. Filler, in your original designation, I
16 believe this is Exhibit 11 to your original
17 designation, Mr. Filler, that was your simulation
18 using, I believe it was, 225, 250 and 275 for prices?

19 A. Hold on. Okay, yes, that's the last one, yes.

20 Q. And your opinion using those parts for your
21 statistical model were \$6,604,669; is that correct?

22 A. Wait a minute. I don't have that one.

23 Q. You don't have Exhibit 11 to your designation?

24 A. Well, no, I don't. You also handed me again the
25 tax return and financial statements.

1 MR. OLAFSEN: I don't have one either, Mr.
2 Dunitz.

3 Q. You're still going to need this. Exhibit 11,
4 your lost profits were \$6,604,669?

5 A. Yes.

6 Q. Mr. Filler, which one of those two numbers that
7 your -- in your original opinion was reasonably
8 certain?

9 A. Well, they are both reasonably certain based on
10 the inputs. If you change the inputs, you get a
11 different answer.

12 Q. Mr. Filler, at your deposition or in your
13 original designation, you had 6.1 million and
14 6.6 million as your lost profit damages related to
15 CRI/Criterion; is that correct?

16 A. Yes.

17 Q. Which one of those two was reasonably certain at
18 that time?

19 A. Well, the 6 million 60 -- well, the 6 million
20 756 was reasonable. There's an error in the 6 million
21 604. It's got the wrong -- one of the material costs
22 is wrong.

23 Q. Mr. Filler, we'll get to that. These were the
24 two numbers you provided with your designation; is that
25 correct, with your original designation?

1 A. Original designation. So one of them has got to
2 be --

3 Q. Exhibit 1, Exhibit 11.

4 A. Yes. One is a stochastic model and one is a
5 deterministic model.

6 Q. I understand. Those are the two numbers;
7 correct?

8 A. Right.

9 Q. Which one of those two numbers is reasonably
10 certain?

11 A. Of the two of those, the 6 million 141.

12 Q. And where is that in your designation that that
13 was the reasonably certain one?

14 How is someone reading your designation
15 supposed to know that that was your opinion about lost
16 profit damages?

17 You provided both numbers; correct?

18 A. Yes, I provided both numbers. One of them is a
19 probabilistic model, one is a deterministic model.

20 Q. We understand that, Mr. Filler, but you provided
21 both and you never said which one was your opinion in
22 your designation; did you?

23 A. No, I didn't.

24 Q. Thank you. At your deposition, Mr. Filler, you
25 came with another opinion, I believe it's marked as

1 Exhibit 5 there because it was Exhibit 5 to your
2 deposition.

3 A. Yes.

4 Q. That was a deterministic model; correct?

5 A. Yes.

6 Q. So to keep it consistent, I'll use a black one
7 for the deterministic and that was a lost profits
8 opinion of \$4,525,438; is that correct?

9 A. Right.

10 Q. And that's based on a price of \$196; correct?

11 A. Correct.

12 Q. So at your deposition, Mr. Filler, your opinions
13 were 6.1 million, 6.6 million and 4.5 million; is that
14 correct?

15 A. Excuse me -- that's right, I brought Exhibit 5
16 to the -- yes. Yes, those were the three exhibits,
17 yes.

18 Q. And in your deposition when you were asked, you
19 couldn't tell us which one of those was reasonably
20 certain; isn't that true?

21 A. That's right because I hadn't decided whether or
22 not I was going to -- which one I was going with.

23 Q. You hadn't decided?

24 A. I hadn't decided, right.

25 Q. Well, Mr. Filler, wasn't it actually that you

1 were waiting for plaintiff or plaintiff's counsel to
2 tell you what the price was?

3 A. Nope. I was waiting for confirmation that there
4 was some supporting evidence for the price increase and
5 it never came through so I dropped it.

6 Q. Mr. Filler, could you look at Page 54 of your
7 deposition.

8 A. Yep.

9 Q. Actually, I'm sorry, Page 53 of your deposition,
10 Line 21. You answered the question about the
11 difference between the two models, that it was the
12 selling price.

13 A. Yes.

14 Q. I asked you what the basis was and you said that
15 Mr. Olafsen requested that you run it that way.

16 A. Yep.

17 Q. And then I said so is it your opinion that the
18 CRI related damages are 6.1 million or 4.5 million and
19 your response was well, that's a good question, they
20 are alternative scenarios. Maybe my testimony is both.
21 I mean I don't know.

22 A. Right.

23 Q. And then further down on Page 54, Line 14, I said
24 so at trial, which of these do you expect to be your
25 opinion?

1 Answer: Well, I have to consult with Mr.
2 Olafsen.

3 A. Right. I have to consult with Mr. Olafsen to see
4 whether or not I have enough evidence to go forward
5 with the stochastic model. After consulting with Mr.
6 Olafsen, it was my decision that I didn't have that
7 evidence and it wasn't going to be forthcoming and
8 therefore I ought to drop it.

9 Q. If you can turn to Page 56, Line 1 of your
10 deposition. I asked you in your expert opinion, which
11 of these is reasonably certain to be the amount of lost
12 profits?

13 In these, I was referring to those three; is
14 that correct?

15 A. Yes.

16 Q. And your answer was I think they both are.

17 A. Well, it was all three. I should have said I
18 think they all are.

19 Q. So you said all three of those at your deposition
20 were reasonably certain?

21 A. Given the assumptions that go into each model and
22 after removing the errors.

23 Q. Hope I do this correctly, Mr. Filler. In your
24 set of opinions there, you should have another one
25 marked deterministic model, material cost change; do

1 you have that?

2 A. Yes.

3 Q. You produced this about a month after your
4 deposition; is that correct?

5 A. Yes.

6 Q. And this is the deterministic model again?

7 A. Yes.

8 Q. And it's the 225 price again; is that correct?

9 A. Yes.

10 Q. And now the deterministic model of \$225 is
11 \$6,331,741; is that correct?

12 A. Yes.

13 Q. What was the change in that one?

14 A. The material costs went from -- the larger of the
15 two material costs went from \$72.65 to \$66.76. I had
16 made an error.

17 Q. And about the same time, Mr. Filler, is there a
18 simulated model material cost change there?

19 A. Yes.

20 Q. And that is the same change as the deterministic
21 model, that was the material change; is that correct?

22 A. Yes.

23 Q. And now your simulated amount is \$6,756,653; is
24 that correct?

25 A. Yep.

1 Q. Next document in your packet is deterministic
2 model, price and material change and that you produced
3 about a month after your deposition also; is that
4 correct?

5 A. Yes.

6 Q. And this was with the 196 price that you came to
7 your deposition with and you also -- but you also
8 changed the material; right?

9 A. Correct.

10 Q. And that number is \$4,715,844; is that correct?

11 A. Correct.

12 Q. At the same time that you produced those three,
13 Mr. Filler, you also produced another one that was your
14 simulated model price and material change; is that
15 correct?

16 A. Yes.

17 Q. Simulated ones, so we will use the red, and that
18 is \$4,730,309; is that correct?

19 A. Yes.

20 Q. And these four, the 6.3 million, 6.7 million,
21 4.715 and 4.73 million, those all came after your
22 deposition; is that correct?

23 A. Yes.

24 Q. Mr. Filler, which of these four is reasonably
25 certain?

1 A. None of them are.

2 Q. At the time you issued your opinion, which of
3 those four did you think was reasonably certain?

4 A. If it's a deterministic model, it's the next to
5 last. If it's a probabilistic model, it's the last
6 one.

7 Q. When you produced these four opinions, how was
8 one to know which of those you thought was reasonably
9 certain?

10 A. Well, since I'm making corrections and making
11 changes, you would go with the last submissions and we
12 still had to make a decision whether or not -- which
13 one of the two we were going to drop.

14 Q. This was how long after your -- do you recall
15 how long after your expert designation this was?

16 A. No.

17 Q. Well, your expert designation was in May; is that
18 correct?

19 A. Yes.

20 Q. We deposed you in August, you produced these in
21 September; is that correct?

22 A. Yes.

23 Q. And Mr. Filler, turning to Exhibit 1A that Mr.
24 Olafsen gave you this morning.

25 A. Yes.

1 Q. Now, as I understand it, this is your opinion?

2 A. Yes.

3 Q. 1A is your opinion?

4 A. Yes.

5 Q. And that's \$4,606,405?

6 A. Right.

7 Q. You're now reasonably certain that that's the
8 lost profit?

9 A. Right, yes.

10 Q. Let me understand. At your deposition, you
11 thought -- I'm sorry, which one of these, which one of
12 your high priced ones did you think was reasonably
13 certain at your deposition?

14 A. Hold on. 6 million 141, 6 million -- one was a
15 deterministic model, one was a simulated model, so it's
16 a question of which one are we going to go with.

17 Q. But you're the expert, Mr. Filler, these are your
18 opinions, which one are we going to go with?

19 A. Since I eventually wound up with a deterministic
20 model, we'll say the 6 million 141.

21 Q. So today you're saying that this was the
22 reasonably certain one. Do you recall which one of
23 those you thought was reasonably certain at your
24 deposition?

25 A. At my deposition, I didn't have an opinion as to

1 which one of the two. I thought they were both
2 reasonably certain depending upon the inputs, whether
3 we were going to go with 225 or 197.

4 Q. Mr. Filler, these were both at the 225 price.
5 The simulated was actually 225, 250 and 275, three
6 prices they never got; right?

7 A. Yes, yes. Yes, so it wasn't a question of price,
8 it was a question of which model were we going to
9 present.

10 Q. Well, by the time of your deposition --

11 A. I hadn't made my mind up.

12 Q. You hadn't made your mind up?

13 A. Right, right.

14 Q. You've made your mind up now?

15 A. Yes.

16 Q. So at your deposition, both of these were
17 reasonably certain?

18 A. Depending upon which model we used, yes.

19 Q. At the time of your deposition, these were both
20 reasonably certain?

21 A. Yes.

22 Q. This one was reasonably certain; correct?

23 A. If you change the price, yes.

24 Q. Then of these four that you issued a month after
25 your deposition, at the time you issued them, which of

1 those were reasonably certain, Mr. Filler?

2 A. Again, it depends on whether it's a deterministic
3 or a simulated model, whether --

4 Q. But you're the expert; which one are you using?

5 A. I hadn't made up my mind at that time.

6 Q. So the target was moving for the defendant at
7 that time?

8 A. Yes, I guess. I guess that's what it looks like.

9 Q. Because at the time of your designation, the
10 target was moving even because you had two then; right?

11 A. Yes.

12 Q. So all four of these are reasonably certain?

13 A. Depending upon the assumptions, yes.

14 Q. So then all four of those are reasonably certain,
15 and then you said that this one is reasonably certain?

16 A. That's the one -- that's the one that's
17 reasonably certain.

18 Q. So you issued eight reasonably certain opinions
19 so far in this case; is that correct?

20 A. As I worked my way through the case, yes, that's
21 true.

22 Q. Are you going to give us more, Mr. Filler?

23 A. No, I think I'm done.

24 Q. Are you sure?

25 A. Yes.

1 Q. We have that on the record, correct, that that's
2 his last opinion?

3 Now, Mr. Filler, we spoke earlier about why
4 you changed your weighted average cost of capital and
5 the first one was that you had a \$3.4 million
6 difference in 2007 annual revenues; is that correct?

7 A. Yes.

8 Q. And you also had a couple of stock sales in a
9 harmonic names that shouldn't have been there?

10 A. I had a couple of stock sales in the database of
11 sales transactions, yes.

12 Q. And I think you said that it was a different
13 company's revenue?

14 A. Yes.

15 Q. How did it end up that you had a different
16 company's revenue in a weighted average cost of capital
17 for Packgen?

18 A. A mistake on my part. It was a template that
19 when I loaded it, it came over with some other
20 company's sales figures in there and I just didn't
21 notice it. I missed it.

22 MR. DUNITZ: Your Honor, if there's no
23 objection from Kurt, I would like to -- the first two
24 opinions are part of his designation, but the -- and
25 the last one is part of materials Kurt provided this

1 morning, but the other five opinions I don't think have
2 been offered as an exhibit.

3 THE COURT: So do you want to just mark that;
4 is that what you want to do?

5 MR. DUNITZ: No, I'd like to -- the actual
6 spreadsheets that have his opinions, if we can mark
7 those. Those are --

8 THE COURT: Sure. However you want to do it
9 is fine.

10 MR. DUNITZ: And we can mark that as well for
11 the summary.

12 THE COURT: Do you have any objection to that,
13 Mr. Olafsen?

14 MR. OLAFSEN: One thing, I was going to talk
15 to Mr. Dunitz about that at the break, the 4.730 one,
16 Mr. Dunitz requested at Mr. Filler's deposition that
17 Mr. Filler actually run a simulation using historical
18 price to see where it would come out and then send it
19 to Mr. Dunitz, but that's not Mr. Filler's opinion,
20 that's something Mr. Dunitz and Jonathan, if you may
21 recall my September 21st e-mail, which I do have here,
22 I was sending that to you because you had requested at
23 the deposition that Mr. Filler run a simulation with
24 historical prices.

25 MR. DUNITZ: Well, that is correct. I did ask

1 that he run it, but I think if we look at his
2 deposition, that will explain why we asked that he run
3 it.

4 MR. OLAFSEN: But my only point is I think
5 you're trying to make it look like that's some opinion
6 he came up with and that was only done at your request.

7 MR. DUNITZ: Your Honor, I will happily cross
8 out \$4.73 million. That's the one you object to? Is
9 the 4.731 the one that we're not -- was my opinion?

10 MR. OLAFSEN: I'll confirm that. It was 4.73.

11 MR. DUNITZ: Your Honor, I apologize. There
12 are only seven reasonably certain opinions.

13 THE COURT: So I'm not going to decide this
14 dispute here right now.

15 MR. DUNITZ: Yes, I understand that.

16 THE COURT: Do you want to have that marked --

17 MR. DUNITZ: I would like to have that marked.

18 THE COURT: Just don't interrupt me, all
19 right? I just want to finish what I'm saying.

20 MR. DUNITZ: I'm sorry.

21 THE COURT: And is there any objection, Mr.
22 Olafsen, to having that marked and admitted?

23 MR. OLAFSEN: No, not with the one crossed
24 out, that's fine.

25 THE COURT: All right. So why don't you mark

1 that for the next Berry deposition -- Berry exhibit
2 number.

3 MR. DUNITZ: I believe we are on 2.

4 THE COURT: That's fine. So Berry 2, which
5 would otherwise be a demonstrative exhibit, is
6 admitted.

7 MR. DUNITZ: And then I would, however, like
8 to enter all eight of his calculations.

9 THE COURT: That's fine.

10 MR. DUNITZ: The spreadsheets.

11 THE COURT: Do you have those -- do you want
12 to mark those during a break or what's your plan?

13 MR. DUNITZ: If we can do it at the break,
14 that would be fine.

15 THE COURT: That's fine. What's your plan
16 now? We are at almost seven minutes of 1:00.

17 MR. DUNITZ: I have just a couple more
18 questions on the CRI/Criterion and then we can take a
19 break and I can move on to refineries after lunch, if
20 that works.

21 THE COURT: Okay fine, yes.

22 BY MR. DUNITZ:

23 Q. Mr. Filler, your opinion is now \$4.6 million,
24 that's your lone, reasonably certain lost profits; is
25 that correct?

1 A. Yes.

2 Q. And none of the other numbers are reasonably
3 certain; is that correct?

4 A. Correct.

5 Q. So we can assume now that the price issue from
6 the deposition has been resolved?

7 A. Yes.

8 Q. And so is it our understanding that you're now
9 using the model for your damages that Mr. Olafsen asked
10 you to use?

11 A. The deterministic model, yes.

12 Q. Not the model that you chose when you originally
13 ran the model as the expert?

14 A. Not the model I chose holding it in reserve the
15 right to change my opinion if no further supporting
16 evidence comes forward regarding price increase.

17 Q. So at the time you were designated as an expert
18 in this case, you were reserving the right to change
19 your opinion depending upon what evidence you found as
20 the case went on?

21 A. Evidence that was presented to me.

22 Q. Did you ask any questions about evidence for the
23 225 at the time you issued your opinion?

24 A. Oh, yes.

25 Q. And you didn't get it?

1 A. I didn't get it.

2 Q. But you issued your opinion with the 225 anyway?

3 A. Thinking that holding out that perhaps, you know,
4 somebody would come up with something, but they didn't.

5 Q. You understand that this case proceeds by certain
6 deadlines issued by the Court; correct?

7 A. Yes.

8 Q. And that your designation was part of that;
9 correct?

10 A. Yes.

11 Q. So you felt that even though you didn't have the
12 evidence to use one -- to use \$225, that you would use
13 it hoping that evidence came up later from somewhere,
14 even though you had how many hours of conversations
15 with Mr. Lapoint?

16 A. Many.

17 Q. How many documents did you get from Mr. Lapoint?

18 A. Many.

19 Q. And you were still holding out hope that there
20 was somewhere some e-mail at the time of -- by the
21 time you were designated, you were still holding out
22 hope that there would be evidence about price; correct?

23 A. Yes.

24 Q. If there was no evidence of that price, why
25 didn't you at your deposition or why didn't you at your

1 designation issue the two prices? Why did you wait
2 until your deposition?

3 A. I don't know.

4 MR. DUNITZ: Your Honor, that's -- I think
5 that's it with the CRI so --

6 THE COURT: Okay, let's talk about -- you may
7 stand down, sir, thank you. Let's talk about where
8 we're going in terms of how long do people want for
9 lunch, get a sense for how long it needs? I know it
10 takes hours to get a salad in this town so --

11 MR. DUNITZ: Yes, I think 45 minutes.

12 THE COURT: That's fine.

13 MR. DUNITZ: If that works.

14 THE COURT: That's fine.

15 MR. DUNITZ: Is that going to be okay with
16 you?

17 MR. OLAFSEN: No, I think that's fine,
18 assuming we can get a salad or a piece of pizza,
19 whatever, to eat quickly.

20 THE COURT: That should be enough. Now, so we
21 will come back here at quarter of 2:00 and in the
22 interim, you will mark the exhibits --

23 MR. DUNITZ: Correct, Your Honor.

24 THE COURT: -- that you need and how much
25 longer do you think you have?

1 MR. DUNITZ: I think I may have about another
2 45 minutes to an hour. The refineries, there are some
3 trickiness in the refineries.

4 THE COURT: Sure. I'm trying to get an
5 estimate of the schedule, not asking for an
6 explanation. Are you going to redirect?

7 MR. OLAFSEN: Right now, Your Honor, I would
8 estimate 10 to 15 minutes. I'm not sure what will come
9 up after the break.

10 THE COURT: Okay and then what do you plan
11 after that?

12 MR. DUNITZ: After that, I plan on putting on
13 Dr. Cowan and Nancy Fannon. Based on what we discussed
14 at the conference, I actually didn't prepare any direct
15 to them. I'm just going to let them explain what they
16 did and what their opinions are.

17 THE COURT: Sure and how long do you
18 anticipate that will take?

19 MR. DUNITZ: I think --

20 THE COURT: My question really is are we going
21 to get this done today?

22 MR. DUNITZ: I think that we can. I mean I
23 don't think Nancy is going to be --

24 THE COURT: Well, you want to --

25 MR. DUNITZ: I think we can get it done today,

1 Your Honor.

2 THE COURT: Well, you want to consult with
3 both your witnesses during the break and we will see
4 where we go; all right?

5 MR. DUNITZ: Thank you, Your Honor.

6 THE COURT: Thank you very much.

7 (Time noted: 12:57 p.m.)

8 (Recess called).

9 (Time noted: 1:51 p.m.)

10 THE COURT: You may proceed.

11 MR. DUNITZ: Thank you, Your Honor.

12 BY MR. DUNITZ:

13 Q. Mr. Filler, just hypothetically speaking, if the
14 weighted average cost of capital is too low in the lost
15 profit calculations, would you expect the lost profits
16 to decrease when the weighted average cost to capital
17 is increased?

18 A. The higher the discount rate, the lower the
19 present value of the lost profits.

20 Q. Okay. So if -- so basically with the
21 CRI/Criterion, when you raised your weighted average
22 cost of capital estimate, part of what caused the
23 Criterion lost profit to go down; is that correct?

24 A. Yes.

25 Q. Similarly, if a company has greater mitigating

1 sales than were expected, that would also lower your
2 lost profits calculations; wouldn't it?

3 A. Yes, it should.

4 Q. And so it may seem obvious, but if both the
5 weighted original cost of capital and the mitigating
6 sales are increased, then the lost profits should
7 decrease; is that correct?

8 A. Theoretically, yes.

9 Q. Now, Mr. Filler, were you copied on the cover
10 letter to me from plaintiff's counsel on Monday of this
11 week that he forwarded your new refinery opinion to me?

12 A. I think so.

13 Q. Do you recall that he said that the purpose,
14 other than the change of the weighted average cost of
15 capital, was to update the mitigating sales for the
16 last six quarters?

17 A. To update the actual mitigating sales, yes.

18 Q. For the last six quarters?

19 A. Yes.

20 Q. And those last six quarters would be the last two
21 of 2012 and all of 2013; is that correct?

22 A. Right.

23 Q. Would you please look at Exhibit 13A, which Mr.
24 Olafsen gave you this morning, and Exhibit 13 to your
25 original designation. Mr. Filler, have you found

1 those?

2 A. I've got 13A. And I can't find -- are we done
3 with the Criterion stuff?

4 Q. For now. I may have another question.

5 A. Okay. No, I don't have 13, unless it's in here.
6 No, I don't have 13.

7 Q. Sorry, I thought it was in with your designation.

8 Mr. Filler, years 1 through 4 of your
9 simulation correspond to 2008 to 2011; is that correct?

10 A. Yes.

11 Q. And 2008 through 2011 were before the six
12 quarters that you updated in your opinion; is that
13 correct?

14 A. Something's not right here because the numbers
15 should go 8,595, 400, I think -- I think 13 was
16 subsequently corrected to account for the correct
17 number of actual mitigated sales.

18 Q. That's 13A; correct?

19 A. No, no. I think there is another one in-between.

20 Q. Another 13?

21 A. Yes.

22 Q. What's the damages calculation on your
23 Exhibit 13, Mr. Filler?

24 A. A million 909,073.

25 Q. Isn't that the number that was in your

1 designation?

2 A. I seem to remember something like a million 879.

3 Q. If you can look at your designation, Mr. Filler.

4 Page 5 of the designation under lost sales to

5 refineries, you use a simulation model net model on --

6 THE COURT: You can't talk to yourself.

7 MR. DUNITZ: Sorry.

8 Q. On Page 5 of your designation under the lost

9 sales to refineries.

10 A. I don't have that. I've got a package of stuff

11 here --

12 Q. Mr. Filler, I gave you your designation earlier.

13 A. I know you did. I don't know where it is.

14 THE COURT: Why don't you help him find it, if
15 you would. Thank you, Mr. Dunitz.

16 A. Sorry. I didn't know there was schedules behind
17 it.

18 Q. If you could turn to lost sales refineries, that
19 indicates your opinion is 1.9 million; is that correct?

20 A. Yes, but --

21 Q. And is that the same number that's on Exhibit 13,
22 Mr. Filler?

23 A. Right, but that changed because the actual
24 mitigating sales on 13 were discovered from Exhibit 21?
25 Not 21, 19, Exhibit 19 were incorrect and then we fixed

1 it.

2 Q. Do you recall when you fixed it, Mr. Filler?

3 A. I think it was after my deposition. I think
4 that's when we realized there was an error in 19, 19A.

5 Q. So what was your -- do you recall what your lost
6 profits calculation was in your modified 13, which I
7 don't recall receiving, but --

8 A. I think it was a million 879.

9 Q. Hmm?

10 A. A million 879.

11 Q. A million 879?

12 A. Something like that, yes.

13 Q. And do you recall whether the mitigating sales
14 from that document to the present document increased?

15 A. Well, yeah. If you went to -- you mean the
16 current 13A?

17 Q. The one that has 1.8 million to the current 13A,
18 did the mitigating sales increase?

19 A. Yes, because that one -- yes, the actual
20 mitigating sales increased, yes.

21 Q. So you're saying that your opinion sometime after
22 your deposition changed to 1.8 million?

23 A. Yes.

24 Q. Your weighted average cost to capital went up?

25 A. Yes.

1 Q. Your mitigating sales went up?

2 A. Yes.

3 Q. What's your current lost profits analysis for the
4 refineries on Exhibit 13A?

5 A. It would be a million 957.

6 Q. And that's higher than 1.8?

7 A. Yes.

8 Q. How is your opinion higher if the mitigating
9 sales increased and the weighted average cost of
10 capital increased?

11 A. Well, the actual mitigating sales increased, but
12 remember, we have two elements to mitigating sales,
13 those that have actually taken place and those that we
14 expect to take place.

15 13 from two years ago, almost two years from
16 my deposition, we were missing two years of actual
17 mitigating sales and we had -- so we had four and a
18 quarter years of actual mitigating sales. Now, we have
19 six and a quarter years and I had to take the
20 difference of approximately six years and then four
21 years of potential mitigating sales and move those from
22 six years down to the four years.

23 Q. Did you change any of the mitigating sales
24 between 2008 and 2011 from the updated 13 that had the
25 1.8 million and the current 13A?

1 A. No. I don't remember. I don't think I did. I
2 think all I did was plug in the correct number for
3 actual mitigating sales because the time periods didn't
4 change. It was just that the actual mitigation sales
5 number was not correct.

6 Q. So am I to understand then that 13A is actually
7 not your second opinion regarding the refineries, it's
8 your third opinion regarding the refineries?

9 A. It's my third opinion after -- it's an opinion
10 after -- yes. First, I corrected 13 for the incorrect
11 number of actual mitigating sales and then I corrected
12 it again because we dropped in two more years of actual
13 mitigating sales.

14 Q. Mr. Filler, as I understand it, you calculated by
15 using a computer program called XLSim?

16 A. Yes.

17 Q. And do you use that for all of your statistical
18 analysis?

19 A. Just for simulation.

20 Q. And you said that it took five -- you programmed
21 5,000 spins; is that correct?

22 A. 5,000 trials, yes.

23 Q. And you chose the input for volume of sales,
24 prices, costs, the parameter and the one in ten chance
25 of convincing a refinery that would purchase this;

1 correct?

2 A. Yes.

3 Q. And then when you put those in, you press a
4 button and you say it spins 5,000 times; is that right?

5 A. It does 5,000 trials and it takes the average --
6 well, you set up -- there's ten output sales -- cells,
7 one for each of the ten and it does 5,000 trials for
8 each one of those years and then takes the average.

9 Q. And Mr. Filler, am I safe in the assumption that
10 the data that's placed in there, that's used, the data
11 points is more important than the number of spins,
12 number of trials?

13 A. Once you get over a thousand trials, that's
14 probably true.

15 Q. So if you were to take all of your data except
16 your price and I put, say, 1, 3 and \$5 in for prices
17 for the Cougar sales price, that would be -- end up
18 with an inaccurate result; is that correct?

19 A. Yeah, because you wouldn't have the right prices.

20 Q. So the data points are the key, not the number of
21 spins; correct?

22 A. As long as the trials are more than a thousand
23 because there has to be convergence. Under a thousand
24 trials, the average result bounces all over the place
25 and it's not going to be accurate. You have to have

1 some minimum number of trials, but once you get beyond,
2 say, a thousand trials or 1500 trials in this case, the
3 inputs become more important.

4 Q. Mr. Filler, did you testify that there are
5 refineries beyond these 37 refineries on your list that
6 Packgen actually -- that Packgen sells to?

7 A. Yes.

8 Q. Did you do any analysis of the volume of sales to
9 those refineries?

10 A. No.

11 Q. So you don't know whether those refineries kept
12 buying after the Criterion issue; do you?

13 A. My understanding is that all those refineries are
14 overseas.

15 Q. But you don't know where those are?

16 A. No.

17 Q. Mr. Filler, as statistics expert, your job is to
18 determine the relevant data; is that correct?

19 A. I never said I was a statistics expert.

20 Q. Mr. Filler, isn't your statistics -- isn't your
21 simulation a statistical analysis?

22 A. It uses a statistical tool to get a damages
23 result, yes.

24 Q. Isn't it part of your job in using the
25 statistical tool to determine what data is relevant?

1 A. Yes.

2 Q. And you need to determine what data is a reliable
3 sample; is that correct?

4 A. Yes.

5 Q. Mr. Filler, in this case, the plaintiff Packgen
6 chose the 37 refineries that you used; is that correct?

7 A. Yes.

8 Q. And you assumed that Packgen would make sales to
9 the refineries based on Packgen's representation to you
10 that they intended to sell to them; is that correct?

11 A. Based on the list they gave me, the list that
12 they worked up from the 120 refineries, the list that
13 they determined based on geography would be the most
14 likely buyers, yes.

15 Q. Mr. Filler, did you ever see a marketing plan for
16 Packgen?

17 A. There is no written marketing plan.

18 Q. But you said this 37 -- this list of 37
19 refineries was not prepared for litigation, this
20 existed?

21 A. Yes.

22 Q. And that's not considered a marketing plan?

23 A. Let's define our terms. To me, a marketing plan
24 is a set of objectives, a set of actions, some -- a
25 follow-up, names of the characters who are going to

1 participate. That -- to me that's a marketing plan.

2 What we have here is a target list of
3 potential customers. That's an element of a marketing
4 plan. I don't consider it a marketing plan.

5 Q. Mr. Filler, your understanding of why the Cougar
6 should be so successful is because of their cost
7 efficiency; is that correct?

8 A. Yes.

9 Q. Are you aware of any studies of the 37 refineries
10 indicating that their purchasing decision is based on
11 price alone?

12 A. All I know is that the margins at refineries are
13 thin and if there's a 25 to 50 percent cost savings, I
14 can't imagine why they wouldn't investigate buying,
15 plus remember my model sets up a 90 percent chance
16 every year of failure to sell.

17 Q. Mr. Filler, are you aware of any marketing survey
18 indicating that the sole purchasing decision for spent
19 catalyst containers is price?

20 A. Nope.

21 Q. Thank you. Now, Mr. Filler, you've analyzed the
22 price of the containers, you didn't analyze what the
23 cost would be for the refinery to use it; did you?

24 Well, Mr. Filler, a flow bin arrives at the
25 refinery ready to use; is that correct?

1 A. Yes.

2 Q. Does Packgen -- does the Cougar have to be set
3 up?

4 A. It has to be popped open.

5 Q. Mr. Filler, does the Cougar have to be disposed
6 of?

7 A. Yes.

8 Q. And who owns the Cougar?

9 A. The refinery.

10 Q. So the refinery is responsible for its disposal;
11 is that correct?

12 A. Yes.

13 Q. And they put spent catalyst in these containers,
14 Mr. Filler?

15 A. Yes.

16 Q. Do you have any idea what the cost is to dispose
17 of a catalyst container that contains the residue of
18 catalyst?

19 A. Do I know? No, I don't.

20 Q. And flow bins are rented; is that correct?

21 A. Yes.

22 Q. So the refineries would not be responsible for
23 disposing them; is that correct?

24 A. They're responsible for getting them back to
25 Texas and responsible for having them cleaned.

1 Q. But they're not responsible for disposing of
2 them?

3 A. No.

4 Q. Did you do any analysis of what the cost was for
5 disposing of a Cougar?

6 A. No, I didn't have to. All I knew was that the
7 cost savings were 25 to 50 percent, including the
8 disposal of the Cougar.

9 Q. If you don't know what the disposal cost is, how
10 do you know that that's the price differential?

11 A. Because it's built into the quote sheet that
12 Packgen uses.

13 Q. Mr. Filler, I just asked you what the price -- if
14 you knew the price -- what it costs to dispose of a
15 Cougar and you said no.

16 A. I don't.

17 Q. But now you're telling me it's built into the
18 cost sheet.

19 A. No, not the cost sheets I used. The quote
20 sheets, quote sheets that Packgen uses to demonstrate
21 to the refineries how, after you factor in all the
22 costs of owning the Cougar, there's still a 25 to
23 50 percent savings to the refineries over flow bins.

24 Q. Mr. Filler, the 37 refineries are all in North
25 America; is that correct?

1 A. Yes.

2 Q. Do you know the total refineries that exist in
3 North America in 2008?

4 A. I believe it was in excess of 120.

5 Q. Do you know how many existed in 2012?

6 A. No.

7 Q. And you don't know how many exist today, I'm
8 assuming.

9 A. Correct, I don't.

10 Q. Mr. Filler, do you know how many of the existing
11 refineries are idle?

12 A. No, I don't.

13 Q. Do you know when, why -- or do you know when
14 refineries are idled, how often?

15 A. Well, when you change over catalyst.

16 Q. Is that the only reason they are idled?

17 A. That's the only reason I know of.

18 Q. Mr. Filler, do you know the average age of
19 refineries in North America?

20 A. No.

21 Q. Do you know the average age of the refineries in
22 your list of 37?

23 A. No.

24 Q. Do you know where any North American refinery is
25 located, other than the 37 that are in the list

1 plaintiff gave you?

2 A. Well, I know some are in Houston, some are in New
3 Jersey, but that's it.

4 Q. Do you know the volume of spent catalyst
5 generated by any North American refinery other than the
6 37 given to you by the plaintiff?

7 A. Well, according to Mr. Berman's report, he tells
8 us what the annual volume is. That includes the 37.

9 Q. Do you know the amount of spent catalyst
10 generated by any specific refineries other than the 37
11 on the list?

12 A. No, I don't.

13 Q. Mr. Filler, if you would look to Exhibit 17 on
14 your designation.

15 A. Yes.

16 Q. Mr. Filler, on that refinery, there is a list of
17 32 refineries and then a list of five refineries; is
18 that correct?

19 A. Yes.

20 Q. And under the list of five refineries, it says
21 rented catalyst continuous stream; is that right?

22 A. Yes.

23 Q. And the other two are non-resid; is that -- do
24 you know whether the other 32 are not-resid in your
25 stream?

1 A. It's non-resid, non-resid catalyst continuous
2 stream.

3 Q. That's what the other 32 are, non-resid?

4 A. Right.

5 Q. And if 5 of 37 refineries are resid units, that's
6 approximately 13.5 percent of your sample size; is that
7 correct?

8 A. Yes.

9 Q. Do you know how 13.5 percent compares to the
10 ratio of North American refineries using resid units
11 versus those using non-resid units?

12 A. Repeat the question?

13 Q. Let me rephrase the question. Do you know
14 whether your 37 -- whether the 37 refineries given to
15 you by Packgen are weighted -- the ratio of non-resid
16 to resid is the same as it is in the overall number of
17 North American refineries?

18 A. No, I don't.

19 Q. Do you know how many North American refineries
20 use resid units?

21 A. Only what Mr. Berman says in his report about
22 total of catalyst used by those types of refineries.

23 Q. Mr. Filler, the total for the 32 non-resid
24 refineries is 249,800 cubic feet; is that correct,
25 annually?

1 A. Yes.

2 Q. The five refineries using resid units is
3 approximately four times that; is that correct?

4 A. Yes.

5 Q. And that's about 994 cubic feet?

6 A. Yes.

7 Q. Now, Mr. Filler, if the resid units were at a
8 higher ratio in your 37 then they are to -- in the
9 general or total number of resid -- total number of
10 refineries, wouldn't that suggest that this is weighted
11 towards refineries that use more catalyst?

12 A. Mr. Dunitz, this is not a random sample of the
13 120 refineries in this country. This is a selection of
14 the 37 refineries, including the five residual catalyst
15 continuous stream refineries that were the best sales
16 prospects for Packgen.

17 Q. That Packgen decided were the best sales project
18 for Packgen -- prospects for Packgen?

19 A. Because they put this list together before the
20 incident.

21 Q. But you didn't do any analysis of whether this 37
22 was a valid 37, whether these were real or imagined
23 prospects? You didn't do any analysis of these 37, you
24 just took it from your client; correct?

25 A. Mr. Berman confirmed the volume of catalyst in

1 cubic feet for each one of these.

2 Q. I'm not talking about the volume of cubic feet.
3 I'm talking about the list of 37, the choice of 37 out
4 of an unknown number of refineries in North America.

5 You didn't check, you didn't do any analysis
6 to see whether this 37 were truly the best prospects;
7 did you?

8 A. Since this was not prepared for litigation, it
9 was part of their ordinary books and records and they
10 were using it pre-incident, I took it at face value
11 that they knew what they were doing when it came to
12 targeting their own customers.

13 Q. So you accepted Packgen's list without --

14 A. Yes. Well, Mr. Berman went over it.

15 Q. Mr. Berman went over it for the catalyst amounts,
16 Mr. Filler. I'm talking about the potential for sales.
17 That was not Mr. Berman's job here; was it?

18 A. I did not -- no, I did not take the 120, the
19 list of over 120 refineries in North America and sit
20 down and figure out on my own which ones Packgen ought
21 to sell to, no. I did not do that.

22 Q. Now, Mr. Filler, during your direct-examination,
23 you explained how you arrived at the ten percent, 1 in
24 10 probability of selling to a refinery and you
25 suggested that that was based upon the model or could

1 you -- I'm sorry, strike that.

2 Can you explain how you determined the ten
3 percent probability of selling to a refinery?

4 A. Well, on 13A, there's ten years, 1, 2, 3, 4, 5,
5 6, 7, 8, 9, 10. Underneath those years is a cell that
6 contains a random variable that goes from 1 to 10 and
7 you do a trial, it spins, it stops. If the random
8 integer cell matches up with the year, then you've made
9 a sale to that company.

10 Q. So the model dictated the 1 in 10?

11 A. Yes. Well, I dictated the ten percent and then
12 the model chooses.

13 Q. How did you determine that 1 in 10 percent was
14 appropriate?

15 A. I thought ten -- I thought a 90 percent chance
16 of not making a sale, because of all of the issues that
17 I described earlier, leaves a ten percent chance of
18 making a sale and when I ran the model with that ten
19 percent probability of making a sale, a 90 percent
20 probability of failure every year, I got 13,244 units
21 at the end of ten years, which is comparable to what we
22 were currently selling Criterion and at the ten years,
23 we had a 50 percent market penetration into the 37
24 refineries.

25 Q. Did you base the ten percent on any empirical

1 data?

2 A. There is no empirical data. There are no tables,
3 there are no websites, there are no schedules, there is
4 no one you can talk to. You have to estimate what are
5 your chances of success. I estimated ten percent and I
6 got results that I thought were reasonable.

7 Q. You couldn't talk to the refineries?

8 A. No. I don't think I could talk to the
9 refineries.

10 Q. So there is no way of doing a market survey of
11 the refineries to determine whether 1 in 10 was an
12 appropriate --

13 A. Doing a market survey wouldn't have told me that.
14 If I talked to all 37 refineries, I don't know what
15 answers I would get. They might have said Packgen who?

16 Q. Well, if they said Packgen who, Mr. Filler, that
17 would suggest that that would be one that wouldn't be
18 purchasing; wouldn't it?

19 A. That's why it's a 90 percent chance of failure,
20 Mr. Dunitz.

21 Q. Mr. Filler, there were pre-incident sales to
22 refineries; is that correct?

23 A. There were a few, yes.

24 Q. And Packgen was marketing actively to refineries
25 before the incident; is that correct?

1 A. Yes.

2 Q. Did you analyze what their success was
3 pre-incident?

4 A. No, I did not.

5 Q. So Mr. Filler, how can you tell that 1 in 10 is
6 an appropriate number if you don't know what they were
7 doing pre-incident?

8 A. Because what they were doing pre-incident is not
9 germane to what they would have done during the six
10 months -- or what they planned to do post-incident
11 because they had a huge marketing coup in that once a
12 refinery sees fresh catalyst arriving from Criterion in
13 a Packgen container, that's a stamp of approval. That
14 makes sales a lot easier.

15 It certainly in my mind gets us up to the ten
16 percent chance of success and I said, therefore, what
17 they were doing before, without the Criterion
18 intangible stamp of approval, is meaningless.

19 Q. So if you were to do a survey -- not a survey --
20 if you were to look at the pre-incident sale and find
21 that it was 1 in 20, then that would have no impact on
22 your decision that 1 and 10 was appropriate?

23 A. Not really.

24 Q. Is 1 in 50, you'd still have 1 in 10?

25 A. You would still go to 1 in 10, right, because

1 things had changed.

2 Q. That's not based on any empirical date, that's a
3 guess; right?

4 A. It's not a guess. We are dealing with the
5 future, Mr. Dunitz. You have to make reasonable
6 assumptions.

7 Q. How do you know that was a reasonable assumption?

8 A. Because of the results I got. Don't forget, in
9 2013, they did 3,637 units which is more than
10 25 percent of the 13,000 that I predicted.

11 Q. But again, correlation is not causation, you have
12 no idea why those were purchased.

13 A. Well, they were purchased because of the catalyst
14 changeovers in the refineries and keep in mind --

15 Q. Mr. Filler --

16 A. -- hold on. Keep in mind that the calculations
17 are done on an annual basis. The physical changeovers
18 are done on a 30-month basis so you wouldn't
19 necessarily see increase in purchases every year. You
20 ought to see gaps, which probably explains the drop in
21 2012.

22 Q. Mr. Filler, all 37 refineries do it on the same
23 schedule?

24 A. No, different schedules.

25 Q. So then wouldn't that suggest that it would be

1 more like the Senate where a third turns over every two
2 years?

3 A. Not necessarily because the 30 months is an
4 average. Some of them turnover a lot sooner, some of
5 them changeover afterwards.

6 Q. So then again, the time that they changeover
7 would have an effect on when they purchase is also a
8 guess. You have no idea why the Packgen spent Cougars
9 were at 2,000, I think it was in 2011, 500 in 2012,
10 3,000, you don't know why that is; do you?

11 A. I'm attributing it to the changeover process.

12 Q. You don't know why that is; do you, Mr. Filler?

13 A. Absolutely I don't. No, I don't know.

14 Q. Thank you. Now, Mr. Filler, according to your
15 designation, your simulations assume that once a sale
16 is made to a particular refinery, Packgen will continue
17 to sell to that refinery until March 31st, 2018; is
18 that correct?

19 A. Yes.

20 Q. And that's your opinion; right?

21 A. Yes.

22 Q. Mr. Filler, just out of curiosity, if there is a
23 1 in 10 chance of selling to a refinery and once a
24 refinery is a customer, stays a customer, how many of
25 those 37 are customers at the end of the ten years?

1 A. I can't answer that.

2 Q. Why not?

3 A. Because the model -- I didn't set the model up
4 to give me that answer, if it even could.

5 Q. Are you aware of any contract between refineries
6 and catalyst container -- well, it would be CHEP -- it
7 would be CHEP or Packgen -- any long-term contracts for
8 purchasing Cougars?

9 A. No.

10 Q. You're not aware of any industry custom that has
11 multi-year contracts; are you?

12 A. No.

13 Q. And Mr. Filler, to assume a refinery will
14 continue to purchase Cougars for ten years, you have to
15 assume that competitors won't react to a market share
16 being diminished; correct?

17 A. That is taken into consideration. That's why
18 there's a 90 percent chance of failure and only a ten
19 percent chance of getting and keeping the customer.

20 Q. So the ten percent now also deals with not just
21 keeping the refinery -- excuse me. You're assuming
22 though that once a refinery is a customer, it stays as
23 a customer and CHEP is not going to try to get that
24 customer back?

25 A. As I said earlier, the 90 percent includes those

1 refineries that bought it, tried it and for whatever
2 reason gave them up.

3 Q. So then your opinion isn't really that you
4 assumed that once a sale to a particular refinery is
5 made, it continues despite the --

6 A. I've only counted those that survive. That's how
7 the model is set up. That's why it's a 90 percent
8 chance of failure and only a ten percent chance of
9 success to account for all of the problems with making
10 sales to these refineries, including CHEP trying to
11 come in and obliterate Packgen's less than four percent
12 market share.

13 Q. Mr. Filler, your opinion is that once sales to a
14 particular refinery began, Packgen will continue to
15 sell to that refinery; is that correct?

16 A. Let me rephrase that. Once a permanent sale is
17 made -- I have not counted impermanent sales, I've
18 thrown those in with the 90 percent.

19 Q. Where is that in your opinion, in your
20 designation? Your designation says that once a sale --
21 once sales to a refinery began, they continue to sell
22 to that refinery.

23 A. Yes, that's what I said.

24 Q. But that's not really what it means?

25 A. It means -- I should have said permanent sales.

1 Q. And how do you define permanent sales, Mr.
2 Filler?

3 A. Somebody who buys and continues to buy and
4 doesn't drop out because of company politics, doesn't
5 drop out because CHEP lowered their price, but really
6 likes the product and wants to continue to realize
7 savings.

8 Q. Mr. Filler, would you turn to Exhibit 19 in your
9 designation.

10 A. 19 or 19A?

11 Q. 19 or 19A. I think it's the same so 19 or --

12 A. Yep.

13 Q. And Mr. Filler, that's the list of 37 refineries
14 Packgen gave you; is that correct?

15 A. It looks like it.

16 Q. That's the one you used for your analysis; isn't
17 it, Mr. Filler?

18 A. Yes.

19 Q. Yes?

20 A. Yes.

21 Q. Mr. Filler, under customer name on Exhibit 19 --

22 A. Yes.

23 Q. -- what's the name of the first two customers?

24 A. BP.

25 Q. And then there's two numbers and then there's two

1 more entries for BP; is that correct?

2 A. Yes.

3 Q. And then in the -- I think it's in the resid
4 refineries, there is also a BP?

5 A. Yes.

6 Q. And one of those five BP entries has sales; is
7 that correct?

8 A. Yes.

9 Q. And that was in 2009 and 2011; is that correct?

10 A. Correct.

11 Q. And none after 2011?

12 A. Right.

13 Q. Mr. Filler, if BP or any other refinery purchased
14 Cougars after 2008, but then stopped, how do you relate
15 that to Berry?

16 They bought them in 2008 or in 2009 and then
17 again in 2011. If they stopped buying after 2011, how
18 can that be attributed to Berry, Mr. Filler?

19 A. Well, you know, again this is sales based on
20 actual turnover period versus annual sales of the
21 month, so if they have a changeover in 2009, they would
22 buy. If they had a changeover in 2011, they would buy.
23 They didn't buy in '13, maybe they will buy in '14.

24 Q. Mr. Filler, are you aware that in October of
25 2011, Packgen sued BP?

1 A. Yes.

2 Q. And you know that that suit was related to the
3 Deepwater Horizon, not anything Berry did; correct?

4 A. Correct.

5 Q. So how do you know that BP, those five refineries
6 on your list that are BP refineries and bought after
7 the Berry incident, would stop buying because they were
8 sued?

9 A. My understanding is that the refining end of the
10 business versus the exploratory part of the business,
11 it's two different divisions and they don't talk to
12 each other.

13 Q. Where did you get that understanding, Mr. Filler?

14 A. I got that from Mr. Lapoint.

15 Q. That's where you got most of your information;
16 right?

17 A. I got a lot of information from him.

18 Q. Did you do any research into ethanol production
19 or other alternative fuels?

20 A. No.

21 Q. Couldn't that have an impact on the use of
22 catalyst?

23 A. Whatever decreasing use it might have is offset
24 by the continuing -- as Mr. Berman said, the
25 continuing increase in the use of dirty oil that

1 requires more catalyst, that's why he said it was going
2 up 3 to 5 percent a year.

3 Q. Now, Mr. Filler, if you could turn to Exhibit 17.
4 That's a document you prepared, Mr. Filler?

5 A. Well, no, this comes from Packgen.

6 Q. But you used that to determine the total amount
7 of catalyst for these 37 refineries; is that correct?

8 A. Yes. I reviewed the math, yes.

9 Q. Does your simulation assume that every refinery
10 that buys from Packgen buys exclusively from Packgen?

11 A. No. No, it doesn't.

12 Q. That's part of the ten percent; is that it?

13 A. No, no. If we look at 13A, we can see that the
14 best-case assumes that there's no other supplier, but
15 the most likely case and the worst-case assumes there's
16 another supplier.

17 Q. Mr. Filler, could you look at Page 96 of your
18 deposition, Line 8. At your deposition, did you tell
19 me that the ten percent, and that be would be ten
20 percent odds of getting a refinery customer, that the
21 ten percent was where you built in the assumption that
22 they wouldn't use exclusively Packgen products?

23 A. Well, I said that's where the ten percent comes
24 in, but I must have misunderstood your question.

25 Q. And then Line 13, didn't you say yes, yes, this

1 assumes that all of the spent catalyst is contained in
2 Cougars?

3 A. The whole -- the whole -- yes, all of the
4 Cougars that they bought contained spent catalyst. It
5 doesn't mean that if they only bought 50 percent of
6 what they needed from Packgen, it couldn't include all
7 of their spent catalyst.

8 Q. Mr. Filler, on Exhibit 13A where you deal with
9 the price, you use the triangular distribution?

10 A. Yes.

11 Q. What's the factual basis for your three values?

12 A. That comes from 17 -- well, 17, which really
13 then flows into 18.

14 Q. That includes all three of them?

15 A. Yes.

16 Q. How did you determine the high and the low?

17 A. Well, the high, 379.75, is the list price.

18 Q. Okay. Then how did you determine the mid and the
19 low?

20 A. The mid was, I think, 95 percent of the best
21 price and the worst-case was 90 percent and as I've
22 explained this morning, Packgen was selling Cougars at
23 this price. It felt that it didn't have to lower its
24 price in order to get the business. That it was a
25 quoted price, it was a list price, that it wasn't

1 really up for negotiation.

2 Q. Mr. Filler, when you prepared the updated 13A and
3 you added the mitigating sales to that --

4 A. Yes.

5 Q. -- did you -- what was the source of the
6 mitigating sales? Was it a document prepared by
7 Packgen?

8 A. Yeah, I think it's 19. Exhibit 19, 19A.

9 Q. And you didn't prepare that; correct?

10 A. No, never prepared it. It's always come down
11 from Packgen.

12 Q. Did you look at any of the backup information for
13 the mitigating sales?

14 A. No.

15 Q. Mr. Filler, do you know whether the mitigating
16 sales were in the price range that you have in your
17 simulation?

18 A. For the -- yes. For the --

19 Q. For the mitigating sales that you added, do you
20 know what the prices for those were?

21 A. Well, 422 and a quarter, 385, 292, 385, 361, and
22 then I understand that Mr. Lapoint tried to counter the
23 resistance he was getting from the refineries because
24 of the incident and lowered his prices to induce them
25 to buy from him.

1 Q. He lowered the prices to induce them to buy from
2 him?

3 A. Yes.

4 Q. And there's no possibility at all that he lowered
5 the prices because the prices were too high?

6 A. No, because refineries, prior to the incident,
7 had been paying the list prices.

8 Q. I thought they hadn't sold to these refineries
9 yet.

10 A. Excuse me, other refineries had been paying.

11 Q. But not these refineries, Mr. Filler?

12 A. But we've got these refineries here in 2008, '9,
13 '10 and into '11 paying the list prices.

14 Q. Did you see the invoices for those?

15 A. No.

16 Q. And you relied on Packgen for that too?

17 A. Yes.

18 Q. So you don't know what the prices are?

19 A. Well, the prices are listed on 19A.

20 Q. Which was produced -- which was prepared by
21 Packgen?

22 A. Yes.

23 Q. Mr. Filler, on Exhibit 13A, I just want to clear
24 up a little confusion that I have on 13A, the simulated
25 sales number that you thought -- number of units that

1 you thought Packgen would sell, is that the line that
2 says simulated unit sales?

3 A. Yes.

4 Q. So in other words, in your ten, you thought it
5 would be 13,244?

6 A. Yes.

7 Q. Mr. Filler, on that same line, the expected unit
8 sales in that year was 13,874?

9 A. Yes.

10 Q. That's what you would say were the expected
11 mitigating sales?

12 A. Yes.

13 Q. And then the lost units is 3,275; is that
14 correct?

15 A. Yes.

16 Q. So Mr. Filler, you're saying that there's -- the
17 simulated unit sales are 13,000, but the total of the
18 lost expected unit sales and the lost unit sales is
19 about 16,000; is that correct? 17,000.

20 A. Well, this is one trial and that trial says that
21 expected sales for that -- the tenth year on that one
22 trial -- well, let me back up a second. The 13,244 is
23 the average expected sales in year ten after 5,000
24 trials. That number, that line does not enter the
25 model. It's there solely for information purposes.

1 So we go up three lines to the 17,249, that's
2 one trial. The expected sale of 13,874 is one trial
3 and lost sales of 3,375 is just one trial. You have to
4 run that 5,000 times, right, to find out what the lost
5 expected sales were in year ten and if you did that, I
6 don't know -- well, I can't tell you what it would be
7 because I didn't program that as an output cell. The
8 simulation model itself only has one output cell and
9 that's the lost profits.

10 Q. So you don't know what this would -- you don't
11 know what the revenue, the total revenue for Packgen
12 would be based on this for the refineries?

13 A. Yes. No, I do because it's over on the right.

14 Q. And which number is that, Mr. Filler?

15 A. Let's see, the -- I take that back. No, the
16 revenue associated with the 13,244 is 4,789,257.

17 Q. 4,789,257?

18 A. Yes.

19 Q. And that's the revenue that the 1.957 is based
20 on?

21 A. No, no.

22 Q. What's the revenue that the 1.957 is based on?
23 What's the total revenue that the 1.957 lost profits is
24 based on?

25 A. I did not make that an output cell. I can't

1 answer that question.

2 Q. Mr. Filler, if we don't know what the revenue for
3 the company is for these 37 refineries, how can we know
4 what the lost profits are?

5 A. Because that's all part of the model, okay? The
6 dollar amount that I've simulated that's at issue here
7 is what are the loss profits, right? And we know that
8 the simulated lost profits start with a negative 149,
9 climb up and then go down again in the final year to
10 41,111.

11 I didn't think it was necessary to make as an
12 output cell every single element of the calculation
13 because I had already demonstrated, for information
14 purposes, what these simulated unit sales would be and
15 what the simulated -- what the dollar amount
16 associated with those simulated sales would be.

17 Q. So there is no way for me to test this thing?

18 A. Sure, you can run it.

19 Q. Am I going to get the same number if I run it?

20 A. Not unless you use the same seat every time
21 because remember, these are all random variables and
22 they will move around an average. You're not going to
23 get, you know --

24 Q. So your lost profits number would change every
25 time you did 5,000 spins?

1 A. Yes, because we're dealing with random variables,
2 but it would be very, very close each time because
3 that's one of the reasons why you run 5,000 is to make
4 sure that each time you run it, you don't get more
5 than, you know, 1/10th of a percent difference.

6 Q. Mr. Filler, do you know what the range of gross
7 revenue for the 37 refineries is?

8 A. Range of revenue?

9 Q. Just gross range of revenue that -- since you
10 can't tell me that the 4.7 million is the revenue
11 Packgen would receive, do you have any idea what the
12 range was, the high and the low was?

13 A. Hold on. Yeah, it's a five percent chance of
14 only being two and a half million and 95 percent chance
15 of being 6.8 million with an average of 4.8 million.

16 Q. Average is 4.8 million?

17 A. Yes.

18 Q. Okay. Mr. Filler, there's no place in your
19 opinion where you've actually added the anticipated
20 revenue of Packgen based upon your two models; is
21 there?

22 A. Where I combined them?

23 Q. Yes.

24 A. No.

25 Q. So you don't know what the combined revenue of

1 your two models is; do you?

2 A. Well, on the tenth year, Criterion sales are
3 2,000,978. Tenth year they were expected to be
4 4,789,257, so you just add those two together.

5 Q. If you'd look at Exhibit 3 to your designation,
6 Mr. Filler.

7 A. Yes.

8 Q. According to Exhibit 3, the CRI related revenue
9 for Packgen in 2004 was \$550,552; is that right?

10 A. CRI, \$550,552, yep.

11 Q. And in 2005, that was \$941,484?

12 A. Yes.

13 Q. And in '06, \$574,001?

14 A. Yes.

15 Q. And in '07, it was 1.2 million approximately;
16 correct? \$1,238,248.

17 A. Yep.

18 Q. And in 2004 through 2007, you have no refinery
19 sales, correct, in your analysis?

20 A. Right.

21 Q. And by 2017, you predicted that the CRI sales
22 would be 2.9 million; correct?

23 A. Yes.

24 Q. It's actually \$2,978,882; is that correct?

25 A. 2,978,882 based on six months sales of half that

1 number.

2 Q. Hmm?

3 A. Based on six months of sales of a million 450.

4 Q. So in your last year of your analysis, you had
5 the revenue being 2.9 million?

6 A. Right.

7 Q. And then the CRI figure, I think you said, was --
8 excuse me, the refinery number you said was
9 4.8 million; is that right?

10 A. In the tenth year, yes.

11 Q. So in the tenth year, the revenue for Packgen is
12 \$7,778,882; is that correct?

13 A. Correct.

14 Q. But actually, we don't have inflation in here; do
15 we?

16 A. No, we don't.

17 Q. Can you calculate inflation for year ten as you
18 sit here?

19 A. As I sit here, no.

20 Q. Okay. Mr. Filler, in 2004 -- actually, I don't
21 have 2004 on the chart here, but in 2005, you had
22 \$941,484 so that's probably about there for 2005; would
23 you agree?

24 A. Sure.

25 Q. And in 2006, we are up to 9 -- I'm sorry, 2006,

1 we're back down to 574 so that's probably closer down
2 here; is that correct, Mr. Filler?

3 A. Sure.

4 Q. And then in 2007, we are at 1.2 million, so
5 that's probably right there?

6 A. Yes.

7 Q. And then in 2017, we're at 7 million; is that
8 correct? 7.7 million so we're about here; aren't we,
9 Mr. Filler?

10 A. Yes.

11 Q. Now, Mr. Filler, if we connect these dots without
12 counting for inflation, you basically have a hockey
13 stick; don't you, Mr. Filler?

14 A. Looks like a hockey stick, but that's what was
15 actually expected to take place.

16 Q. In your analysis?

17 A. Well, remember, we -- in six months that we were
18 selling to Criterion, we had sales of a million 450.
19 If you annualize that, that's \$3 million in sales. The
20 first year of selling to the refineries, we would
21 expect sales of 769,000, 1 million 435, 2 million 33,
22 so on and so forth, so that eventually after ten years
23 yes, you'd get up to that.

24 MR. DUNITZ: I have no further questions, Your
25 Honor.

THE COURT: Thank you. Redirect.

2 MR. OLAFSEN: Thank you, Your Honor.

3 MR. DUNITZ: Your Honor, if we could, no
4 objection to marking those exhibits as well.

5 THE COURT: Any objection?

6 MR. OLAFSEN: No, Your Honor.

7 THE COURT: Why don't you mark them and they
8 will be admitted as 3 and 4?

9 MR. DUNITZ: I think we had 3, Your Honor,
10 which was before the break.

THE COURT: Okay.

12 MR. DUNITZ: So they are 4 and 5.

13 THE COURT: 4 and 5 are admitted without
14 objection, as is 3.

15 MR. DUNITZ: Thank you, Your Honor.

16 THE COURT: Thank you, Mr. Dunitz. Redirect.

REDIRECT EXAMINATION

18 BY MR. OLAFSEN:

19 Q. Mr. Filler, there was some questions early on
20 about expertise in statistics; do you recall those?

21 A. Yes.

22 Q. Is statistics expertise necessary to determine
23 the inputs that go into a simulation model?

24 A. I don't believe so.

25 Q. What type of expertise is needed to come up with

1 the proper inputs for simulation?

2 A. An understanding of how business works.

3 Q. And is that the sort of thing that you do as a
4 damage expert?

5 A. As a damage expert, as a CPA, as a business
6 consultant, as a teacher of management, yes.

7 Q. And I think you've testified earlier that these
8 inputs were based on the facts and data that you
9 obtained in this case and your professional judgment?

10 A. Yes.

11 Q. I think you also said that to the extent
12 statistics expertise is needed, that's provided through
13 the people that develop the computer software
14 simulation programs?

15 A. That's correct.

16 Q. Mr. Filler, how many cases have you been
17 designated as a damage expert?

18 A. Oh, as a damage expert? I've had over a hundred
19 designations. The majority of those are for business
20 valuation. 20, 25?

21 Q. There was some questions also about when you
22 received certain information and I'd like to ask you
23 first, do you have an understanding of when your
24 deposition was taken in relation to other depositions?

25 A. I believe my deposition was taken prior to that

1 of John Lapoint and Celeste Horton.

2 Q. So before your deposition, you didn't have an
3 opportunity to review deposition transcripts of those
4 Packgen employees?

5 A. That's correct.

6 Q. Did you have that opportunity after your
7 deposition?

8 A. Yes, I did.

9 Q. You also testified that you had no evidence that
10 the sales to Criterion during the six-month period
11 would continue; what did you mean by that?

12 A. Well, I meant I had no hard evidence. I had
13 nothing in writing. What I had was intangible evidence
14 that the sales would continue. I had the fact that
15 Packgen -- excuse me, that Criterion was a prior
16 customer, that they had a sales history going back to
17 2003. I had the fact that they were involved in the
18 development of the latest version of the IBC. I had
19 the intangible fact, the intangible evidence that they
20 had sent people up to the factory to check it out. All
21 of that to me is intangible evidence of their
22 commitment to the product.

23 Q. You also testified about dropping a simulation
24 model, and just so it's clear, are we talking about the
25 refineries or the Criterion simulation models?

1 A. It was the Criterion simulation model. There was
2 never a deterministic model for the refineries. It was
3 always probabilistic.

4 Q. As part of the work that you did in this case,
5 did you review Packgen's sales history with its
6 customers for catalyst containers?

7 A. Yes, I did.

8 Q. Did you see in your review of that sales history
9 any sales of catalyst containers to fresh catalyst
10 manufacturers other than to Criterion?

11 A. No. The only fresh catalyst customer I ever saw
12 was Criterion. All the other catalyst sales were to
13 refineries.

14 Q. There was also a discussion of several different
15 opinions that had been coming out through your
16 designations. Did you consider -- well, let me back
17 up for a second. I believe you testified that they
18 were based on different assumptions?

19 A. Yes.

20 Q. Is it unusual for you as a damages expert to have
21 to make certain assumptions and to have alternative
22 scenarios develop?

23 A. Quite often.

24 Q. And throughout these different alternative
25 scenarios, did your methodology change or did the model

1 you used change?

2 A. The methodology didn't change. What changed were
3 the inputs, some of the assumptions.

4 Q. I think I can do this one armed. I would like to
5 just look back briefly at Berry Exhibit Number 2 in
6 which there were a number of numbers written down and,
7 in particular, there are three numbers right around
8 four and a half million, 4.7 million, 4.6 million; do
9 you see those?

10 A. Yes.

11 Q. That all relates to the Criterion deterministic
12 model?

13 A. Yes.

14 Q. The change from the 4.5 million to the 4.7 --
15 I'm sorry, this 4.7, was that the material cost change
16 that you had mentioned?

17 A. Yes.

18 Q. And what was the material cost change?

19 A. It went from, I think, 72 to \$66.

20 Q. And why was that changed?

21 A. 72 was in error. It was an input error.

22 Q. Meaning the wrong number was inputted?

23 A. Yes.

24 Q. And when you saw it, that was corrected?

25 A. Yes.

1 Q. And then from the 4.7 number down to the number
2 you testified today, which is 4.6 --

3 A. Yes.

4 Q. -- what was that change due to?

5 A. I believe that's the discount rate.

6 Q. And you testified earlier about the discount rate
7 in the error and you corrected that?

8 A. Yes.

9 Q. There was also some testimony about Exhibit 19A
10 and there being an error in that. Was 19A, which is
11 the exhibit of actual sales to the refineries, was that
12 prepared by you or by Packgen?

13 A. Prepared by Packgen. I don't remember there
14 being an error in it. Well, originally there was an
15 error, yes.

16 Q. Way back in the beginning there was an error?

17 A. Yes.

18 Q. But that was not your error?

19 A. Right.

20 Q. You also said that you were told by Packgen that
21 there were sales to international refineries?

22 A. Yes.

23 Q. Did you ask Packgen whether sales to these
24 international refineries were affected by the product
25 failure?

1 A. I don't think I did.

2 Q. Did Packgen ever tell you that those were
3 affected by the product failure?

4 A. No, they never -- they never said one way or the
5 other.

6 Q. So the list of refineries in Exhibit 17, those
7 were the ones that you were told were affected by the
8 product failure?

9 A. Yes.

10 Q. You also mentioned some pre-incident sales to the
11 refineries. Just before this product failure, had the
12 Cougar changed in any way?

13 A. Yes. It had gone from, I believe, single layer
14 over time to double layer to the aluminum foil
15 wrapping. I don't know if that's the correct term I'm
16 using, but that was the latest version.

17 Q. And was it this version that you were told
18 Packgen was trying to market to these refineries before
19 the product failure?

20 A. Yes.

21 MR. OLAFSEN: No further questions. Thank
22 you.

23 THE COURT: Mr. Dunitz.

24 MR. DUNITZ: Thank you, Your Honor.

25 (Continued on the following page)

1 RECROSS EXAMINATION

2 BY MR. DUNITZ:

3 Q. Mr. Filler, would you look at your designation
4 Exhibit 3, please.

5 A. Yes.

6 Q. And on that page, let's look at Page 1 of that,
7 who are the customers on Page 1?

8 A. Page 1?

9 Q. What are the names of the customers?

10 A. It doesn't say.

11 Q. So how do you know none of those are catalyst or
12 fresh catalyst customers?

13 A. Because the only fresh catalyst customer was CRI.

14 Q. How do you know, Mr. Filler?

15 Mr. Olafsen just asked you if you saw any
16 evidence of sales to fresh catalyst Cougars. You don't
17 know who those customers are; do you?

18 A. Yeah, but if you, you know, if you look at --
19 this is not the general ledger. This is an Excel
20 spreadsheet and when I was up there verifying the CRI
21 sales, I had access to the general ledger with the
22 bookkeeper and that's when I saw there were no other
23 fresh catalysts.

24 Q. Mr. Filler, who are the fresh catalyst producers
25 other than CRI/Criterion?

1 A. I don't know.

2 Q. How do you know they weren't on the list?

3 A. Because they weren't in that category with CRI.

4 Q. Now, Mr. Olafsen was just discussing with you
5 that there was an error on 19 that was made by Packgen?

6 A. Yes.

7 Q. Do you know whether they made any other errors?

8 A. Not that I'm aware of. The math all checks out.

9 Q. And the error that they made in 19A, does that
10 impact your opinion?

11 A. Well, sure, because we had to make a change. We
12 had to correct it.

13 MR. DUNITZ: Nothing further, Your Honor.

14 THE COURT: Thank you. Anything further?

15 MR. OLAFSEN: No, Your Honor.

16 THE COURT: Thank you. You may stand down,
17 sir. You may take those with you.

18 THE WITNESS: Take all this with me?

19 THE COURT: Mr. Dunitz, do you want those
20 exhibits up there or how do you want to proceed?

21 MR. DUNITZ: They don't need to remain there,
22 Your Honor.

23 THE COURT: Okay.

24 MR. DUNITZ: Your Honor, could we take a
25 five-minute break?

1 THE COURT: Sure. Court will stand in recess.

2 (Time noted: 3:02 p.m.)

3 (Recess called)

4 (Time noted: 3:13 p.m.)

5 MR. DUNITZ: Your Honor, we call Dr. Charles
6 Cowan. Your Honor, Mr. Cowan took some notes during
7 Mr. Filler's testimony; is it okay if he brings those
8 with him?

9 THE COURT: Sure.

10 MR. DUNITZ: Would you like to see those?

11 MR. OLAFSEN: I don't have time to read them
12 anyway, so why don't you just take them up.

13 One thing, Your Honor, before we move on. There
14 was one part of Mr. Filler's designation, a very minor
15 part, where he gives opinions to lost profits on the
16 canceled orders, the orders that were cancelled.

17 The defendant said they're not challenging that so
18 we haven't mentioned that at all.

19 THE COURT: Okay.

20 MR. OLAFSEN: I want to make clear that --

21 THE COURT: Well, we're going to talk about
22 memoranda and presumably any issues like that you
23 can --

24 MR. OLAFSEN: But that's why we did not
25 discuss that.

1 THE COURT: Okay. Well, thank you very much.

2 THE CLERK: Please raise your right hand. Do
3 you solemnly swear that the testimony you will give in
4 the cause now in hearing will be the truth, the whole
5 truth, and nothing but the truth, so help you God?

6 THE WITNESS: I do.

7 THE CLERK: Please be seated.

8 THE WITNESS: Charles Douglas Cowan, C-O-W-A-N

9 DIRECT EXAMINATION

10 BY MR. DUNITZ:

11 Q. Dr. Cowan, if you could provide the Court with a
12 short synopsis of your background and then what we
13 engaged you to do for this case and your opinions,
14 please.

15 A. Sure. I'd be happy to. I have a Doctorate in
16 Mathematical Statistics and Bachelor's and Master's in
17 Economics with a specialty in Econometrics.

18 Mathematical statistics is a little different
19 than applied statistics because for my degree, I have
20 to actually be able to derive every statistic. It's
21 not just knowing the statistics, I have to be able to
22 drive them mathematically from basic principles.
23 Because of that, it means that I have more training in
24 mathematics than a lot of statisticians and I have
25 applied statistician who work for me, but if you really

1 want to get down and do the calculation, that's what I
2 do.

3 I started out at the Bureau of the Census
4 where I rose to the level of chief of survey design. I
5 was in charge of the evaluation of the 1980 census and
6 then I ran the international statistical program. When
7 I left the Census Bureau and became the first chief
8 statistician for the U.S. Department of Education where
9 it's like being at the Census Bureau, but you're doing
10 education instead of population and demography.

11 I left there to go to the private sector for a
12 while. I came back. During the last banking crisis, I
13 was the chief statistician for the Resolution Trust
14 Corporation and then for the FDIC and I spent a lot of
15 time designing samples, doing analysis, doing
16 simulations.

17 THE COURT: So you're the guy.

18 A. I'm the guy who fixed it. And then I've been
19 working on the most recent banking crisis. A lot of
20 our work has to do with the residential mortgage back
21 securitization and their valuations, but back in the
22 day when I was working for the RTC and the FDIC, I
23 spent a lot of time testifying before Congress, the
24 GAO, OMB, when I wasn't crunching numbers.

25 I left there to become director of

1 quantitative methods for Price Waterhouse, then started
2 up my own firm and my firm's been in operation for
3 about 11 years. We have 60 people in three offices
4 around the country. Most of us have a quantitative
5 background of some type, either in finance, economics,
6 statistics, operations research and so on.

7 Q. Thank you.

8 A. And you wanted me to go on and explain --

9 Q. Explain your opinions in this case.

10 A. Okay. Well, what you asked me to do was to look
11 at Mr. Filler's report and to look at specifically the
12 statistical aspect of it, what statistics had been
13 used, how had they been used and what conclusions could
14 I draw regarding the application of statistics and his
15 analysis.

16 Q. And what did you determine?

17 A. Well, I have a variety of different opinions and
18 I wrote a report that laid out my opinions, but I can
19 go over them here, not in as great detail as in my
20 report, but there are a few things that I think it's
21 necessary to address, if you'd like me to.

22 THE COURT: Right. The issue here is whether
23 or not his opinion is valid.

24 A. Okay.

25 THE COURT: That's really -- it's not your

1 opinions that we're really interested in today. I'm
2 sure at some point we may well be very interested in
3 them, but our real focus here today is what criticism
4 you have of Mr. Filler's analysis; isn't that correct?

5 MR. DUNITZ: That's correct, so if you can
6 address those for the Court.

7 A. Sure. So I think what I'd like to do is maybe
8 set the stage a little bit and talk about use of
9 simulations and use of statistics and I'll try to keep
10 it very direct on those two points.

11 So I'll preface this by saying that in my own
12 professional work, we run simulations all the time.
13 I'm quite used to running simulations and we do it on
14 large scale where we've got hundreds of thousands of
15 loans in a set of securitizations. A typical
16 simulation run for us can take up to 24 hours to get it
17 through the computer.

18 So now, I'd like to go back to an example that
19 Mr. Filler gave earlier. So if you recall from this
20 morning, he gave an example where he said suppose that
21 I have two cells and in the first cell, I've got
22 numbers 1, 2 and 3 and then in the other cell, I've got
23 numbers 5, 6, 7 and 8.

24 My immediate reaction to that was perfect, the
25 average of that is going -- for that simulation, no

1 matter what he does, the average is going to be 13 and
2 how do I know that? Well, because the average of the
3 first set of numbers is 2, the average of the second
4 set of numbers was 6.5 and because he's generated these
5 independently, it's two times 6.5 is 13.

6 I don't need a simulation to figure that out.
7 I don't need any statistical mechanism or computer
8 program because it's basic principles. The only reason
9 that I run simulations is because typically, I'm
10 dealing with something that is interactive. One thing
11 changes, it causes something else to change and then
12 kicks back and so on or there are limitations where in
13 the requirements for the sale of securitization of
14 loans, for example, there's a cap as to how much
15 investors can receive and then after that, that money
16 goes into a different pool. Well, I have to account
17 for that, that you hit a cap. There isn't a nice
18 mathematical formula for that. You hit the cap, you
19 stop paying the investors.

20 So -- but in the math that we're doing here,
21 everything that's been done is a really simple,
22 straightforward calculation like two times 6 and a
23 half. Not only can I do that calculation, but I can
24 also take all the numbers that come out of that because
25 I've got 1, 2, 3, 5, 6, 7 and 8, that's three times 4,

1 that's 12 numbers. I can use that also to calculate
2 the variability because those outcomes range from 5 to
3 24 and if I look at how frequently each of those
4 occurs, I can talk not only about what's the center of
5 that distribution of outcomes, but I can talk about how
6 wide the range is and I can calculate that directly.
7 As a matter of fact, we're doing it right now without a
8 computer program, paper, pencil, calculator, anything.

9 Okay, so for all the calculations that he's
10 done, other than the fact the numbers are a little bit
11 larger so I can't do them in my head anymore, but I can
12 do them on a sheet of paper without a calculator and I
13 can tell you what the ranges are.

14 Now, part of the key on the ranges is that
15 nowhere at any time during the discussion today have we
16 brought up what the ranges of these outcomes are, how
17 reliable or not reliable are the outcomes.

18 Well, one of the reasons for running a
19 simulation is not only figuring out where the center is
20 in a very complicated calculation, but how reliable is
21 that result. We haven't talked about that and I think
22 we haven't talked about it for a variety of reasons,
23 but in the outputs and in the exhibits that we
24 discussed earlier, some of those ranges were presented,
25 but they're never covered in Mr. Filler's report.

1 They're never covered in the discussion that we have
2 here.

3 I can tell you from looking at his outputs
4 that reliability is a key question here because the
5 inputs vary and so they lead to a variety in the
6 outputs.

7 Second problem is that some of the
8 calculations that are done -- my first key outcome is
9 that we're not even looking at the right thing because
10 most of the calculations can be done with a paper and a
11 pencil. We don't need some simulation which provides a
12 different output every time when I can calculate the
13 exact result.

14 The second thing that I got from reading the
15 reports and then from today's discussion is that the
16 selection of the parameters were based primarily on
17 discussions with Mr. Lapoint. I'm sure Mr. Lapoint
18 knows his business to a certain extent, but they aren't
19 based on actual numbers that came -- and since the
20 purpose of this exercise is to look at the actual
21 numbers. When I was at Price Waterhouse, we were doing
22 audits, we would go -- and my company does audits
23 now -- we go look at the actual numbers and then we
24 calculate what these values are that would be the input
25 to these type of calculations.

1 I can tell you, based on some of the numbers
2 that are chosen, that there is a wide variety that can
3 come out of the choice of these parameters. So if you
4 pick a low, a high and a most likely point, if that
5 most likely point is low, you get a low average. If
6 that most likely point is high, you get a high average.

7 I haven't seen any documentation anywhere that
8 tells me that those numbers are realistic, that they've
9 been tested, that they're useful for this inquiry or
10 that they relate to historical data and so I have to
11 question the value of the inputs that come mostly out
12 of conversations instead of derived from real numbers.

13 I also heard some -- I'm going to stick with
14 the simulations for a while. I heard testimony
15 earlier, I know from this morning's testimony, what we
16 heard was Mr. Filler was doing simulations because he
17 didn't have adequate data, which that didn't sit real
18 well because that means it's sort of he's generating
19 data when he doesn't have data, but then later, at
20 about 12:10 he said well, if I had the data, I would
21 have run the simulation.

22 Well, it's got to be one or the other. You
23 can't decide that you're going to run a simulation
24 based on no data and then later on say well, I don't
25 have the data, I can't run the simulation. So there

1 was some inconsistencies about why you would choose a
2 technique or why you would choose a particular
3 methodology when there's a question about whether or
4 not you've even got the appropriate inputs to be able
5 to run it.

6 Following on that point, there was also
7 testimony about half an hour later where Mr. Filler
8 said he ran a model and then Mr. Olafsen told him that
9 he didn't have enough evidence to use. Where's the
10 testing? And I'm not sure why Mr. Olafsen is telling
11 him whether or not to run a simulation or use it as
12 evidence, but over and above that, number one, no
13 disrespect, but I wouldn't take his word for it. I run
14 a test. There are tests that go with each of these
15 methodologies and the choice of data and whether or not
16 it's sufficiently reliable to use.

17 So if I could give you a couple of examples.
18 One example is the choice of the normal distribution,
19 which Mr. Filler describes in his report and then says
20 he did a test to determine that it was normally
21 distributed and the test didn't fail so he decided it
22 was normally distributed, the normal distribution being
23 the bell shape curve.

24 The problem with that determination is that
25 what the test actually tells you is that you either

1 reject that it's normal because it's clear that it's
2 not, or that you can't decide, but it doesn't say that
3 it is normal, and when I looked at the data, he only
4 had six data points, which is a very small sample of
5 data, and when I ran the tests and ran a more rigorous
6 protocol to try to see how much data I really needed
7 before I could make a determination, I concluded that
8 his data wasn't normally distributed and not only that,
9 just visually, it didn't look that way. I mean by the
10 eye common sense test.

11 A lot of statistical methodology, despite all
12 of the mathematical trappings, comes out of common
13 sense. You make common sense determinations about why
14 you're doing a particular accounting exercise or how
15 many people did I miss in this census or how many
16 missing children are wandering through the streets of
17 Chicago.

18 So all of those are counting exercises and
19 this is essentially a counting exercise, but the
20 counting exercise has to make sense and if you're
21 looking at a set of data, just choosing a probability
22 distribution and not testing it adequately means that
23 you're essentially guessing and you may not be doing a
24 good job of guessing.

25 I would make the same arguments for the

1 triangular distribution and the uniform distribution.
2 In the case of the normal distribution, he did the test
3 and came to the wrong conclusion about what the test
4 was telling him.

5 In the case of the triangular or the uniform
6 distributions, which he also used, those are continuous
7 distributions. They don't rely just on three points,
8 they rely on all points between the lower bound and the
9 upper bound, which in the triangular some have more
10 probability than others.

11 So while we were characterizing this as a
12 three point distribution, there is three sufficient
13 statistics to define the distribution, but it's all
14 points in-between. The reason that's important is that
15 as you're running the simulation, you're generating all
16 those points in-between and they're all coming up, but
17 they can only come out with the likelihood that went
18 in.

19 So if you put in bad guesses as to the lower
20 bound, the upper bound or, worse yet, the median-point
21 or the middle point, that means that you're going to be
22 generating input values to the simulation that then go
23 through some mechanism, you spit out a number at the
24 end. The problem is that if your guess at the
25 parameters or, worse yet, the shape of the distribution

1 is wrong, then everything that follows is wrong.

2 So I'm really concerned about the inputs
3 because I didn't hear anything that told me about
4 testing. I didn't hear anything about sensitivity
5 analysis, how sensitive is this analysis.

6 When I do this type of work, we also do
7 backtesting. Backcasting is the term that's used. So
8 if I'm running a simulation forward, I would like to
9 know if I ran the simulation backwards, it regenerates
10 the number that I was using for the testing in the
11 first place. He didn't do any of that, so I don't know
12 whether or not the simulations that were run would
13 predict backwards as they necessarily would have to do
14 if you picked the parameters correctly.

15 I have one final point on the distributions
16 which is over and over this morning, you heard that
17 there were a lot of averages. There is an average of
18 this, there was an average of cost, there was an
19 average of variable cost, there was an average of fixed
20 cost and we average the averages. Every time that an
21 average is taken and input, what it does is that
22 reduces the variability and so if I'm making -- if I'm
23 conducting intermediate steps that do a lot of
24 averaging, what I'm doing is I'm eliminating the
25 variability from the outcome.

1 So we don't -- even though the output show
2 what the variability is for the inputs that he
3 provided, what we don't know is suppose we didn't do
4 all of this averaging up front and so -- for example, I
5 helped design the studies that measure the unemployment
6 rate. The unemployment rate in the United States right
7 now is about 6.7 percent, okay, and based on the sample
8 variability from that study, it's about 60,000
9 households each month. The variability is plus or
10 minus about .1 percent.

11 But, you know, down in Texas, the unemployment
12 rate is below 6 percent. Up in New York, it's way
13 higher. I don't know what it is in Maine, I'm sorry, I
14 should have looked it up before I came. You know, that
15 range comes about because I'm not assuming that every
16 state has 6.7 percent. I know that the actual
17 variability in unemployment around the United States is
18 huge and there's only one component after I've done the
19 averaging that's at .1 percent and that's because I
20 looked at 60,000 households and then smushed them
21 together -- smushed being the technical term, okay.

22 I'm going to move on to the refinery analysis,
23 if I may. In the refinery analysis, the approach is
24 taken that there are 37 refineries, and I don't know if
25 that's the right number and that's actually, I believe,

1 up to Packgen, it's their market. So what I do think
2 is important is knowing whether, number one, whether or
3 not there were sales. Number two is this kind of
4 unusual assumption about a 1 in 10 chance probability.
5 So what Mr. Filler says and what he does are two
6 different things, so I'm going to start with the
7 simplest summary and then make it a little bit more
8 complicated.

9 What he actually did, and he described this
10 twice, is that he has ten years, so he has a 1 in 10
11 chance for each year for each refinery that they get a
12 sale, and -- but then he also said that if they make a
13 sale, they keep buying. Well, that's not actually a 1
14 in 10 chance per year. What it really is, is that
15 there's a 1 in 10 chance for year one and if you don't
16 make it in year one, then there is a 1 in 10 chance in
17 year two, but now that's really 1 in 10 times .9 and
18 then in the third year, it's 1 in 10 times .9 squared
19 and so on.

20 So if you look at the probability that you'd
21 actually make a sale, this is called -- in the
22 technical jargon, this is called a markoff process
23 because what you're doing is rolling from year to year
24 to year and it's a markoff process with an absorbing
25 bound. An absorbing bound just means that once you're

1 captured, you're there forever. So this comes out of
2 biological literature where if you die, you stay dead.
3 Same idea. So what you want to do is study well,
4 what's the likelihood that's somebody's going to die
5 since we know they're going to stay dead and how long
6 does this take. This is how survival curves are
7 calculated.

8 So here you have the same problem. Under his
9 methodology, eventually everybody would be captured and
10 there would be no competition in the market and, in
11 fact, that's kind of where we're going now. So one
12 problem is that nobody ever finds an alternative
13 supplier or an alternative good, even though we heard a
14 description this morning about there being alternative
15 goods and a change in the market because of the
16 redesign of the product. So nobody ever goes away.

17 The second problem is, is that there's no
18 competition. You just either capture them or they keep
19 doing what they do until they come to their senses
20 because they can save money, but we don't really know
21 that. We just know that they're captured at some point
22 and then retained forever.

23 So my problem with this type of modeling is
24 that it doesn't reflect what I understand to be the
25 market forces and in the market forces, if you had that

1 much market power, you'd have a lot of people joining
2 in the market to take your market power away. You
3 wouldn't be able to create a monopoly situation and in
4 this case, an absolute monopoly because you'd be the
5 only provider at the end of not ten years, but maybe
6 closer to 20.

7 I don't know the basis for the ten years and
8 not only that, but that -- it was contradicted by other
9 testimony where there's a change out every 30 months,
10 but that 30 months can vary, but we didn't capture the
11 variability on that 30 so that's not captured in there
12 either.

13 So there's a lot of moving pieces here, but I
14 don't see them captured in any model, but the pieces
15 that I do see captured are unrealistic because we wind
16 up with, in a very short amount of time -- it's not
17 like I'm saying, you know, go to extremes, short amount
18 of time you get an absolute monopoly, that makes no
19 sense to me as an economist.

20 Finally, the front end of that model isn't
21 working real well either. There is a probability that
22 all 30 -- it's not a great probability, but there is a
23 probability that all 37 refineries will kick in the
24 first year under his -- because they've all got a 1 in
25 10 chance. Well, I also heard about capacity studies

1 and if there are capacity studies going on, I'm
2 guessing that you couldn't ramp up the 37 refineries in
3 your year one. I doubt you could ramp up 37 refineries
4 in years one, two and three. It takes a while to hire
5 the people, bring in the resources, do whatever is
6 necessary to get an increased operation off the ground.

7 I mean I certainly know this, I run into this
8 every day in my own business, so I don't find this to
9 be unusual, but what that means is, is that some of the
10 probabilities he is generating should actually be zero.
11 They shouldn't be whatever they are and there's no
12 investigation of that either. So once again, this is
13 kind of unrealistic in terms of the modeling process.

14 I also wanted to point out that during the
15 discussion, there were two statements about costs. One
16 was that there was a brief window for observation of
17 cost and a determination of cost through a time study,
18 but then the time study seemed to vary over time. The
19 variability of the outcomes from the time study wasn't
20 captured so that didn't go into the costs at the back
21 end.

22 The other thing was a statement that costs are
23 declining. He said about 12:30, costs keep going down.
24 Well, if costs are going down, that's not captured in
25 this simulation over ten years either. Costs in the

1 simulation, in the report that I got, everything was
2 simulated the first year and then rolled forward in a
3 cash flow model, which I have no problems with cash
4 flow models, but it's not a simulation. It's a
5 simulation in one year and then a cash flow for the
6 other nine years.

7 If that's the case, then we're not really
8 simulating the variability and we're certainly not
9 accounting for the fact that cost functions -- as
10 operations within a company become better, costs would
11 go down, so that's not captured.

12 Rising revenues, changes in prices, all those
13 things which might be divergent and would certainly
14 affect -- if you thought about all the different ways
15 or different paths that you could get out of the
16 simulation, each one would also have a different
17 discounting because things occur at different times.
18 None of that's accounted for either.

19 So I have a lot of problems with the
20 implementation. I mean I understood Mr. Olafsen's
21 question, you know, isn't it up to the statistician to
22 properly program the simulation. Well, it's up to the
23 statistician to properly program the simulation,
24 especially, you know, if it's a product out on the
25 market, but it's equally important that the product be

1 used correctly. If you're not using it correctly,
2 then, you know, it's pretty much useless or worse, it's
3 misleading.

4 And so that the issues that -- so the issues
5 I've got have to do with the choices, these different
6 probability distributions, the lack of testing,
7 arbitrary choice of numbers that are inputs for
8 different things and I'm going to come back to that for
9 one final point.

10 The use of this ten-year model when it
11 contradicts other information we've got about when
12 renewals occur for requirements for catalyst, it
13 violates kind of common sense for what happens at the
14 front end. It doesn't make use of the full range of
15 variabilities, so you don't really get a sense of how
16 variable the outcomes are.

17 The last thing I want to cite is a comment
18 that was made during the -- for the deterministic
19 model, even though I'm talking about statistics. In
20 the deterministic model, there was also the use of a
21 regression analysis and Mr. Filler said I ran a
22 regression and the coefficient wasn't significant, so I
23 was doing that as a comparison to the average --
24 averaging model.

25 Well, on a theoretical level, which is where I

1 operate, the regression model, if the slope isn't
2 significant, it is an averaging model, okay, because
3 all you're doing is you're either averaging or you're
4 introducing a time trend.

5 Well, if the time trend isn't significant,
6 then it shouldn't be there and if it's not significant,
7 the reason that it fails the test is because there's so
8 much variability that you can't determine that you
9 didn't get that result just by chance as opposed to
10 there being a real measure there, but he chose to use
11 it anyway, which violates every statistical principle
12 about why you're doing the test in the first place.

13 If you're just going to go ahead and use it,
14 then why not -- you know, why do the test and then
15 report on it, you know, it kind of violates the whole
16 rationale for why you're doing statistics in the first
17 place.

18 The idea behind statistics is to give you a
19 mechanism for putting together the pieces, like we're
20 talking about here, and that's pretty much what I do,
21 try to explain how the pieces are going to go, but
22 besides that, it also gives you a regimen for testing
23 to be sure at every stage that what you're doing isn't
24 just happenstance, but actually is because there's some
25 effect that's going on that you've now measured.

1 I don't --

2 THE COURT: This is for verification?

3 A. Yes, sir. I don't see the verification. I don't
4 see that there was a testing of the inputs backwards.
5 I don't see some common sense changes to the models.

6 I think that the statistics, to be blunt, were
7 mostly just made up and that I don't find them reliable
8 at all, primarily because, like I just said to you a
9 minute ago, I can multiply two times 6.5 and get 13, I
10 don't need the simulation, I don't need all these
11 probability distributions, I just need some common
12 sense to get there.

13 THE COURT: Okay, thank you. Mr. Olafsen.

14 MR. OLAFSEN: Thank you, Your Honor.

15 MR. DUNITZ: If I could ask one question?

16 THE COURT: Sure.

17 MR. DUNITZ: We filed all of the expert
18 reports with our initial motion. Would those be part
19 of the record or should I enter Mr. Cowan's report as
20 part of the hearing as well?

21 THE COURT: They are already part of the
22 record. By agreement I can review them. I don't think
23 there is any problem with there not --

24 MR. BIXBY: It's a 21-page report, Your Honor.
25 There might be more things in there, there are more

1 things in there that we didn't cover in the last half
2 hour. I think we would like it on the record. If that
3 means marking it again --

THE COURT: They're attached to the motion?

5 MR. BIXBY: They are attached to the motion, I
6 believe.

7 THE COURT: If they are attached to the
8 motion, why don't we just agree that I can consider
9 them.

10 MR. DUNITZ: Thank you, Your Honor.

11 THE COURT: Do you have any problem with that,
12 Mr. Olafsen?

13 MR. OLAFSEN: No, Your Honor.

14 THE COURT: Thank you.

15 THE WITNESS: Mr. Olafsen, I have four
16 granddaughters and please tell your wife that I would
17 have done exactly what you did.

18 MR. OLAFSEN: She knows. All the men she
19 talked to said they would have done the same foolish
20 things, so I'm glad to hear it.

21 | CROSS EXAMINATION

22 BY MR. OLAFSEN:

23 Q. As I understand it, Mr. Cowan, your expertise is
24 in things like survey methods and statistics and
25 computer methods; correct?

1 A. Well, generally, but applied to either via
2 statistics or economic financial situations.

3 Q. You're not a Certified Public Accountant; are
4 you?

5 A. No.

6 Q. And you're not an expert in the analysis of
7 financial records; are you?

8 A. Well, actually it depends on how you're going to
9 define analysis of financial records since I've had to
10 testify in front of hundreds about financial records.

11 Q. Well, do you yourself actually go in and audit
12 businesses, for example?

13 A. Not businesses, but, for example, large
14 retirement pools, so pieces of businesses.

15 Q. What we're talking about in this case is about
16 the operation of a small manufacturing company;
17 correct?

18 A. Yes, sir.

19 Q. And that's not the sort of company that you would
20 have done audits or financial analysis for?

21 A. No.

22 Q. And you're not an expert in either the petroleum
23 industry or the catalyst industry; are you?

24 A. No.

25 Q. And I understand from what you said that you've

1 used simulation models quite frequently?

2 A. Yes.

3 Q. And you don't dispute the validity of those
4 models themselves; do you?

5 A. No.

6 Q. What you're disputing is the inputs used by Mr.
7 Filler?

8 A. Not completely. What I actually said was I
9 disputed both the inputs and the application because I
10 gave you an example where Mr. Filler's simulation model
11 would generate probabilities for certain events that
12 couldn't occur.

13 Q. I'm sorry, could you refresh my memory on what
14 you were referring to there?

15 I recall you saying lack of testimony, but I'm
16 not sure what you just referred to.

17 A. There I was referring to the fact that suppose
18 that the probabilities came out so that -- or let me
19 put it a different way. There is a certain probability
20 that all 37 refineries will be selected in the year
21 one. Okay, there's no way that Packgen can service all
22 37 just de novo.

23 Q. I understand what you're referring to now.

24 THE COURT: Can I just ask a question here, if
25 you don't mind?

1 MR. OLAFSEN: Sure.

2 THE COURT: I guess the issue I have listening
3 to this, this really isn't year one. I mean this
4 incident occurred sometime in 2008. We're six years
5 down the road.

6 MR. OLAFSEN: Right.

7 THE COURT: The question that's been bothering
8 me is that the statistical models that have been
9 presented here, and the simulations that have been
10 presented here, really ignore, for the most part, what
11 actually has occurred.

12 The analysis goes back to the time of the alleged
13 breach and then speculates, arguably, or attempts to
14 analyze what may have occurred between year one and
15 year ten when, in fact, we have on the ground knowledge
16 of what happened during that interval.

17 So I'm a little troubled by the -- I don't know
18 why it isn't easier to come to a conclusion than going
19 back to the initial breach and sort of in a way
20 rewriting history; do you understand where I'm coming
21 from?

22 MR. OLAFSEN: Not quite when you got to the
23 end there. I understand you're saying six years have
24 passed and I do think the testimony was there's been no
25 sales to Criterion during the six years and there have

1 been some actual sales to refineries, so that's all
2 been taken into consideration, but I wasn't sure what
3 you meant right at the end about rewriting history.

4 We're doing, of course, a but for analysis, what
5 would have happened absent the product failure.

6 THE COURT: Right, but we have actual
7 experience to know what happened.

8 MR. OLAFSEN: That's correct. I mean we know
9 there were no sales to Criterion since they terminated
10 the relationship, for example, and we know there have
11 been some sales to refineries.

12 THE COURT: Right. So, for example, how many
13 of these refineries would have purchased in year one or
14 year two? We know actually how -- what the impact, if
15 any, of the incident was by simply looking directly at
16 the number of sales that occurred in year one. We
17 don't have to guess or use a highly sophisticated
18 statistical analysis on that issue; do we?

19 MR. OLAFSEN: I understand what Your Honor is
20 saying now. The actual sales we have from the
21 refineries?

22 THE COURT: Right.

23 MR. OLAFSEN: Those are not the sales that
24 would have happened if the incident hadn't occurred.
25 The testimony, and obviously we're not putting on the

1 whole case today, but the testimony from Packgen
2 witnesses will be that that incident poisoned the well
3 with refineries and they're going to testify in detail
4 about that.

5 THE COURT: Right.

6 MR. OLAFSEN: So that the actual sales we do
7 have are relevant for mitigation, reduced from the
8 damages, but they aren't what would have happened if
9 the incident hadn't happened. So we're trying to
10 recreate here what would have happened absent this
11 product failure.

12 THE COURT: But how do you, how does -- how
13 do these statistics take into account that we're now
14 six years down the road. I guess that's my question.

15 MR. OLAFSEN: I think with the refineries,
16 they don't. Maybe Mr. Filler will disagree if we put
17 him up for rebuttal, but they take into effect the
18 actual sales for mitigation purposes.

19 THE COURT: But the actual sales for
20 mitigation purposes are more than that. They're an
21 actual reflection of what happened. They're not simply
22 mitigation, I mean they're evidence of what actually
23 occurred.

24 MR. OLAFSEN: What happened during the six
25 years, that's right.

1 THE COURT: That's where I'm coming from.

2 It's not simply -- you don't just add them up.

3 MR. OLAFSEN: Right, yes. And I think one
4 thing that's a little awkward about these *Daubert*
5 hearings is they're only experts testifying about their
6 understanding of what the evidence is going to be. I
7 think these things are a little bit clearer usually
8 when we actually have the evidence put on by the fact
9 witnesses and to what happened and why it happened and
10 what they observed.

11 THE COURT: Well, my reaction to what he said,
12 and he's certainly a highly capable individual, as is
13 Mr. Filler, both very intelligent people, but my
14 thought about what I heard in terms of the garbage in/
15 garbage out kind of analysis is that that really is a
16 question of evidence.

17 Mr. Filler can't make up the evidence. He's given
18 the evidence and the evidence the jury either believes
19 or doesn't believe and he's been given varied scenarios
20 based on whatever information he's been given. He's
21 done his best with that information. That's one thing,
22 and I think that is simply -- that's a jury issue.

23 The other issue that he's brought up here is
24 something that is deeper than that and, that is, that
25 Mr. Filler's analysis is fundamentally flawed

1 scientifically, and that's a different analysis.

2 So my -- as far as the garbage in/garbage out
3 business, I think that -- I don't think I need to spend
4 an awful lot of time on, but I do need to hear whatever
5 cross-examination you have on his statement, basically,
6 that the fundamental analysis, the simulation that he
7 did, is scientifically or statistically in error
8 because that's what *Daubert* is all about.

9 MR. OLAFSEN: Well, I'll go then to inputs.

10 THE COURT: Well, no, that's why I say don't
11 go into inputs.

12 MR. OLAFSEN: But actually, what he's saying
13 about the method which -- let me see if I can
14 summarize, and correct me, Mr. Cowan.

15 BY MR. OLAFSEN:

16 Q. One of the things you're saying, leaving inputs
17 aside, is there was a lack of testing of the evidence
18 or data that was used for the inputs; is that right?
19 Is that correct?

20 A. There was a lack of testing of the data used for
21 the inputs that are the inputs to the simulation. So
22 when I talk about the lack of testing of the data, I'm
23 not talking about testing of whether or not the data
24 that he got from Packgen is correct. I'm talking about
25 the testing of the parameters that he then fed into the

1 model, which is -- to me is a very different issue.

2 Q. That's correct. And what you're talking about
3 is, for example, his professional judgments as to what
4 the worst-case price would be or the best-case price?

5 A. I'm sorry, I didn't understand they were his
6 professional judgments. He testified that he had
7 gotten those numbers from Mr. Lapoint.

8 Q. Yes. Did you understand that he also made a
9 professional judgment based on the information he got
10 from Mr. Lapoint?

11 A. I understood that, but I get information all the
12 time. I still test it.

13 Q. And in this case, when you've got a small
14 manufacturing company, rather than reams of data like
15 in the census or unemployment statistics, how would you
16 go about testing what a worst price or a best-case
17 price would be when you do have the actual standard
18 list price and the quoted price?

19 A. Well, for example, one of the statements made
20 earlier was that there was a list price. I'm sorry,
21 this may have been for a cost, a cost that was
22 considered and then Mr. Filler added plus or minus ten
23 percent. I have no idea where ten percent came from.
24 I have no idea whether that's the right number. There
25 was no testing, there was no comparison back to the

1 data. He chose plus or minus ten percent.

2 With regard to the best or worst prices or the
3 list price, I heard two things this morning. One was
4 the selection of the list price and then a discount
5 down to 95 percent and a second discount down to
6 90 percent and then about two hours later, what I heard
7 was that Mr. Lapoint was discounting heavily, well
8 below the 90 percent so that he could then start to
9 market to the refineries, so which is it?

10 Q. Well, we're getting into the inputs, I think, at
11 that point because the explanation from Mr. Filler was
12 that because of the incident, they ended up having to
13 lower prices. So aren't we really talking about the
14 evidence rather than the method that was used?

15 A. Not really because with the method that was used,
16 because it was the triangular distribution, the lower
17 bound of that -- in other words, you can't go below the
18 lower bound with the 90 percent cutoff, but then just a
19 few minutes later we heard that it was below
20 90 percent.

21 So given that the inputs were chosen to
22 restrict the range used in the triangular distribution,
23 I go back to what I said before which is here, there is
24 a clear indication that restricting that range -- and
25 by the way, he also testified that he restricted it in

1 the first year and then shrank the restrictions in
2 subsequent years. I've no idea why you would change
3 your distributions over time without some methodology
4 that would tell you that the prices would change and
5 that there was a test to tell you that both the lower
6 bound and the upper bound would change.

7 So I'm going to disagree with you based on his
8 own testimony that he's making changes, but there's no
9 test, there's no evidence, there's no information that
10 comes out, but it does affect the inputs to the model
11 and my concerns with the inputs to the model.

12 Q. You would agree that the simulation model is
13 trying to simulate what would have happened if this
14 incident of product failure had not occurred; correct?

15 A. No. I would agree that that was the intent of
16 the simulation model. I don't agree that that's what
17 it's doing.

18 Q. I should rephrase it then. The purpose, whether
19 it did it or not, and I realize you disagree, the
20 purpose is to try to model what would have happened if
21 the product failure had not occurred; correct?

22 A. You mean like in a but for model?

23 Q. That's correct.

24 A. Okay, but that -- but under very severe -- I
25 understood your question and I would agree that it is

1 attempting to get at a but for model and with, you
2 know, understanding what you're questions were too.

3 I would agree it's attempting to do a but for
4 model, but the problem is, is that I think some of the
5 implementation was either incomplete because it didn't
6 consider other possibilities which a true but for model
7 would do, and then it would localize what the effect of
8 this event was as opposed to other possible events like
9 competitors entering the market.

10 At the same time, I think some of the
11 probabilities associated with the model were faulty
12 because probabilities were assigned to events that
13 couldn't happen, even though this was in the past, but
14 it was part of the but for scenario. So yeah, I get
15 that was the intent, but given the implementation,
16 that's not what it did.

17 Q. So in prices, you said it's inconsistent in the
18 but for model not to use prices that occurred in the
19 real world which was not a but for world. I mean these
20 prices, recent prices that Packgen had sold units to
21 refineries occurred after the incident and with any
22 fallout and negative effects that might have come from
23 the incident; correct?

24 A. That's my understanding, but given that he was
25 able to get those prices, then they weren't his

1 worst-case prices. He was just guessing badly.

2 Q. Well, my point is in the but for world, we are
3 dealing in a world where there was not a product
4 failure and, as I understand it, you're saying it's
5 inconsistent in the but for world not to use prices
6 that occurred in the world we're in today in which
7 there was a product failure and I'm suggesting that's
8 not inconsistent.

9 A. And okay, so then I'll give you an alternative.
10 Instead of choosing the distribution that he did
11 choose, the triangular distribution, which is a nice,
12 simple and easy to apply distribution, given that this
13 is all being done in XLSim, another choice would have
14 been the beta distribution.

15 It has the same ability to restrict the upper
16 bound on prices, which would have been the list price,
17 but then there would have been declining probabilities
18 of prices all of the way down to zero so that you
19 wouldn't run into this situation of choosing an
20 arbitrary cutoff.

21 Q. But wouldn't you agree that in the real world,
22 we're not going to have prices down at zero?

23 A. Well, that's -- it's down at zero, it has a zero
24 probability. It's a very tiny probability up until
25 whatever parameters you set, but the point is that it's

1 a declining probability becoming asymptotic to zero at
2 zero.

3 Q. Don't these parameters have to model what would
4 have happened in the real world, at least?

5 A. Yes, but I mean that's my problem with the
6 triangular distribution. The triangular distribution
7 -- what would happen in the real world is suppose a
8 large competitor came in and suddenly, to keep from
9 losing all sales, prices are dropped below the
10 90 percent level. I mean that's another alternative
11 that wasn't considered.

12 Q. But you heard the testimony that there is no
13 competition for IBC catalyst containers, Packgen is the
14 only one who sells them. You also heard testimony that
15 Packgen has a very small part of the market and that
16 the only real competition is from a company that sells
17 a totally different product, same use granted, but a
18 totally different product. So where is the basis then
19 for saying the competition needs to be factored into
20 these inputs?

21 A. Well, after I saw the profits that were being
22 generated from this operation and the low entry cost, I
23 was thinking I'd expand my business.

24 Q. Well, I mean that's amusing to say, but you
25 haven't heard all the evidence and that's why we're

1 here today, all Packgen's evidence about what happened
2 when they developed this product working closely with
3 Criterion, everything that they put into it and the
4 effect of this product failure, so we're really not
5 talking about that kind of evidence today.

6 We're just talking about how these parameters
7 were set and wouldn't you agree that the parameters
8 have to be set to model what would have happened in the
9 real world, in the but for simulation?

10 A. And I guess I would argue back that I agree with
11 your statement generally. I guess the concern that
12 I've got is asking Mr. Lapoint what's the lowest value
13 he would sell at as opposed to doing some review of the
14 data.

15 I just don't consider that to be a sufficient
16 study, number one, and number two, if you did try to
17 forecast backwards, would the results that you got
18 using those inputs work and we don't know that because
19 there was no backcasting.

20 So in other words, think of running the model
21 and changing only the variability that you're talking
22 about on the pricing and as you change the variability
23 and let the bounds differ a little bit, is there a
24 point at which you've chosen the bounds correctly so
25 you're backtracking correctly, and the only thing

1 you're changing is the input on the pricing.

2 If you can hit what happened in the past by
3 varying your inputs a little bit, then that gives you
4 some comfort that you've done the right thing. Well,
5 we don't have that.

6 Q. Well, isn't the problem here though that with the
7 refineries, we don't have a past track record that's
8 sufficient to make those comparisons?

9 A. If that's the case, then you shouldn't be running
10 your simulation in the first place because your own
11 expert said if you didn't have enough data, he wouldn't
12 run a simulation.

13 Q. So in your opinion, that unless there is
14 sufficient data to run the sorts of statistical tests
15 you're referring to, there are no damages here and you
16 can't run a simulation?

17 A. I didn't say there were no damages because now
18 you're over-reading what I said, but I would agree you
19 can't run a simulation because at this point, it's not
20 garbage in/garbage out. It's nothing in/garbage out.

21 Q. And is it your testimony that it is inappropriate
22 for a damages expert, such as Mr. Filler, to rely on
23 information obtained from a business and financial
24 information of a business and industry expert such as
25 Mr. Berman, that the expert cannot rely on that

1 information and run a simulation model unless it's able
2 to do the type of statistical testing that you're
3 referring to?

4 A. I'm going to -- that was a really long, compound
5 question so I'm going to break it --

6 Q. It was long.

7 A. So I'm going to break it into two pieces, if I
8 may. The first part of that is that given that most of
9 the information or the only information that he got on
10 the parameters for the inputs came from somebody who is
11 conflicted because, of course, it was his business, I
12 would have questions about that as being a reasonable
13 set of data to rely on and I would have tried some
14 alternatives to test the sensitivity of my model to
15 what I was told, just because I'm naturally skeptical.

16 The second part of that is, is that I'm not
17 aware that he did rely on Mr. Berman because as we
18 heard earlier, Mr. Berman testified that it was like a
19 six-year period, not a ten period for the shakeout of
20 the industry.

21 So I'm not sure that -- although I understand
22 why you're invoking Mr. Berman, but I'm not sure that
23 your expert actually always paid attention to Mr.
24 Berman.

25 Q. Mr. Cowan, are you aware that Mr. Berman's

1 designation says for the next six years what catalyst
2 will be and that that designation was in year four of
3 this ten period?

4 A. Good point, thank you.

5 Q. And wouldn't you agree that the president of a
6 small manufacturing company, such as Packgen, would be
7 knowledgeable about his business, the industry he's in
8 and his products and the costs and sales of those
9 products?

10 A. Not necessarily given that about 70 percent of
11 small businesses fail every year and I work a lot with
12 small business incubators and with the Small Business
13 Administration. I have to tell you that I see some
14 really unrealistic expectations on the part of business
15 owners, which is why I do sensitivity analyses to
16 figure out whether or not the really rosy forecasts
17 that they have are realistic.

18 Q. We're talking about an established business here;
19 correct?

20 A. It's still a small business.

21 Q. And we're talking about a business that's been
22 selling these catalyst containers since 2003; correct?

23 A. So it's been in business less time than I have
24 been.

25 Q. And despite this incident, this product failure,

1 they're still selling catalyst containers; correct?

2 A. True, but before 2003, 2005 -- I'm sorry, before
3 the incident, they had plenty of opportunity to break
4 into the marketplace for the 37 refineries and they
5 didn't, but now all of a sudden, they're going to break
6 in at the rate of, you know, ten percent?

7 Q. Well, I think the important point I want to make
8 here is aren't we just talking about whether it's
9 garbage in or garbage out?

10 A. No, that's the problem. You started this
11 discourse and then His Honor made sure that we stayed
12 on track on the mathematics and how well or how badly
13 the model works from the mathematical and statistical
14 perspective.

15 Garbage in/garbage out, the garbage in implies
16 that there might be a problem with the quality of the
17 evidence, but that would be the quality of the evidence
18 that is being used as the backdrop, the information
19 that goes into the model. I'm actually talking about
20 the model.

21 Q. Well, what I hear you disputing is the quality of
22 the evidence and you can't depend on Mr. Lapoint, for
23 example, and would you agree that the sorts of
24 statistical tests you're talking about don't lend
25 themselves well to a commercial enterprise that's

1 seeking lost damages because of a very devastating
2 event in the past?

3 A. I will tell you that the mathematics, the
4 equations have no idea that it's a small business.
5 It's just a test.

6 Q. But here what we're trying to do is come up with
7 a reasonable degree of certainty as to damages about
8 this type of small business and --

9 A. And there's been -- I apologize, I just
10 interrupted you.

11 Q. That's quite all right. And the sorts of tests
12 you're referring to can't be run in this situation
13 because there just isn't that kind of data; is there?

14 A. Well, if that's the case, then your own expert
15 said you shouldn't be running the simulation, so this
16 is kind of a circular argument. If you don't have
17 adequate tests to determine whether or not your data is
18 any good, you shouldn't be running the simulation,
19 which just generates more of the same stuff.

20 Q. I disagree with you about what Mr. Filler said,
21 but I understand what you're saying.

22 You talked about Mr. Filler using some
23 averages, for example, in costs. He used an average
24 and you criticized that; correct?

25 A. Actually, what I criticized was the fact that

1 there were a multiplicity of averages. I mean I can
2 understand using an average here, an average there, but
3 if there's a multiplicity of averages and at one point
4 he said he used an average of averages, that starts to
5 diminish the variability and the data that should have
6 been accounted for.

7 Q. But with respect to costs, for example, Mr.
8 Filler testified today that he really was using a
9 midpoint and that was the purpose of the average.
10 There's nothing wrong with using a midpoint; is there?

11 A. Oh, certainly there is. So, for example, on the
12 one hand you have the triangular distribution that's
13 anchored at one end at one and the other end at two,
14 but it's a skewed distribution and it's not -- in
15 other words, it's not an isosceles triangle with equal
16 sides. That would mean that the midpoint between one
17 and two is 1.5, but the true value may have been 1.25
18 because most of the probability is at the lower end.

19 So yeah, I really disagree with taking the low
20 point, the high point, adding and dividing by two and
21 calling it an average because it's not.

22 Q. I'm sorry, perhaps I wasn't clear enough, but you
23 would criticize his use of averages for costs. You
24 heard what the Criterion product, they were -- an old
25 set of cost data and then a new set which was lower

1 right before the incident and as I understand it,
2 that's where you criticize Mr. Filler for using an
3 average because it really was a midpoint?

4 A. Well, as I -- are you talking about -- are you
5 referring to my report?

6 Q. No, I'm referring to what you said earlier about
7 averages.

8 A. Okay.

9 Q. The deterministic Criterion model.

10 A. Well, in the deterministic Criterion model, my
11 understanding was that there was an averaging process
12 and that would have been fine, but he was using a
13 regression model, testing it, deciding that the test
14 failed and then used the results on the slope anyway
15 because he thought that was better. I recognize that
16 that might be his professional judgment, but it goes
17 counter to good statistical theory.

18 Q. And you're referring to the overhead analysis?

19 A. I believe so. I couldn't remember exactly where
20 the deterministic regression was run, but I believe
21 that that's right.

22 Q. You don't have any opinion, do you, one way or
23 the other as to whether his overhead figures should be
24 different and what -- if so, to what degree they should
25 be different?

1 A. I wasn't asked to consider that. That's an
2 evidentiary question. I'm commenting on the statistics
3 he used.

4 Q. You also referred to the ten percent chance of
5 making a sale with the refineries and that it wasn't
6 really a ten percent chance; do you recall that?

7 A. Yes.

8 Q. Isn't it true that in a simulation, the ten
9 percent chance was used just to determine when sales to
10 a refinery would start?

11 A. Yeah. That's actually what happened, but that's
12 not the wording he used.

13 Q. But if the ten percent chance is simply used for
14 that purpose, to determine when sales start, then you
15 don't have an issue with that; do you?

16 A. Well, other than the fact that I don't know why
17 ten percent was chosen when he also testified that
18 there was a 30-month window before there was a change
19 out.

20 Q. But leaving that aside, if ten percent was used
21 simply to determine when in the simulation when the
22 sales to the refineries start, there's nothing wrong
23 with that?

24 A. Well, let's put it this way. He has to come up
25 with some number. My question is for the number that

1 goes in, where did that number come from and what's the
2 justification because I don't see any evidence that ten
3 percent is any better than two percent or any better
4 than 20 percent. It's just a number pulled out of the
5 air.

6 Q. Right, but I'm talking about something a little
7 different. When you said the ten percent chance used
8 really isn't a ten percent because overall, it would be
9 some greater number, do you recall testifying to that?

10 A. Yes, but I was repeating his testimony and how he
11 characterized it. You have now re-characterized it to
12 correct it and I get what you're trying to do, but the
13 fact is you're doing a better job at presenting it than
14 he did.

15 Q. Well, and I never did take statistics so I'll
16 take that as, at least, a compliment to some degree.

17 A. Yes, sir.

18 Q. But I just want to make clear if that's the case,
19 if that's the way it was used, then that's --

20 A. If that was -- that was the way it was used, then
21 your characterization of how it was used is correct and
22 that wasn't my concern. My concern was why ten percent
23 as opposed to the mechanism. The mechanism was the
24 mechanism.

25 I disagree with generating the numbers and

1 then using them that way, but at least for the idea of
2 I've got ten years, I've got 1/10th and I'm using that
3 every year, yeah, that's -- I'll buy that.

4 Q. Okay. You also said that the failure to factor
5 in competition does not reflect market forces and my
6 question is have you done any analysis here of the
7 market forces for containers for catalyst?

8 A. I wasn't asked to do that. I was asked to
9 consider whether or not the model covered enough that
10 you could do the but for analysis that you were
11 describing.

12 Q. So you don't know what those market forces are,
13 if there are any?

14 A. Well, it wouldn't be relevant for me to opine on
15 them anyway. I'm opining on the statistical and
16 mathematical properties of the model, not whether or
17 not there are market forces.

18 Q. You also testified that the ten-year period
19 chosen is contradicted by the 30-month changeover for
20 some of these refineries?

21 A. Yes.

22 Q. Correct? Are you aware that in Exhibit 17, which
23 lists all the refineries and the quantities, that the
24 quantities were annualized for purposes of the
25 calculations?

1 A. Yes, I was, but part of my concern was the fact
2 that if it really is -- and there is a more fulsome
3 discussion of this earlier, but my concern was that if
4 it was a 30-month change out, and sometimes it was less
5 than 30 months and sometimes it was greater than
6 30 months, none of that is captured.

7 I mean I get the annualized part, but the
8 variability, none of that is captured in the
9 simulation. So once again, we're underestimating how
10 variable, how reliable, how credible his results are
11 because we're not putting in all of the information.
12 We're only putting in an average.

13 Q. But if over 10 years, 30 months ends up being the
14 average with sometimes less than 30 and sometimes more,
15 as long as it comes out to 30 months on average, we're
16 doing all right with the calculations; aren't we?

17 A. No. You just contradicted exactly what I said.

18 Q. Okay.

19 A. You are in expectation, which means that at the
20 end -- the midpoint of what you're trying to project
21 will likely be close if you've done the annualization
22 correctly and I'll give you that one. However, if it's
23 really sometimes less than 30, sometimes greater than
24 30, that's another source of variability.

25 Variability is how you determine how credible

1 or reliable the outcomes from this model are, where
2 there's been no discussion of how credible or reliable
3 these models are just based on the variability that
4 they generate. So I mean it's not covered in his
5 reports, you haven't brought it up, counsel for the
6 defense hasn't brought it up, but when I look at the
7 simulation, part of the reason for running the
8 simulation is that it gives me an empirical probability
9 distribution for the outcome at the end of the process,
10 assuming that I put the right inputs in.

11 Well, if I have squelched the variability
12 because I'm always using one number as opposed to
13 thinking about how it varies in relationship to
14 everything else that's going on, then I have
15 underestimated the variability or the outcome or I've
16 overestimated the reliability.

17 So I agree with you that on average, you've
18 hit the right number in the middle, although
19 personally, I would have just used pencil and paper,
20 but for the variability of the outcome and for the
21 opportunity to think about maybe larger companies have
22 a quicker change out, smaller companies have a longer
23 change out, any of those other factors that could have
24 gone in that would explain part of what the market
25 forces were. None of that is in there, but there was a

1 discussion about it today so I find it inconsistent to
2 say hey, this is variable and I'm completely ignoring
3 it.

4 Q. We're getting into quality of evidence again,
5 aren't we, that certain types of evidence should be
6 available and shouldn't be considered?

7 A. No. From my perspective, it's how I evaluate
8 whether or not the simulation is telling me anything
9 useful and since nobody is looking at that, and since
10 we're underestimating the variability that goes in, I'm
11 saying that it's limiting the mathematical properties
12 of the simulation.

13 Q. You also testified that there is a probability
14 under the simulation model that in the first year, all
15 37 refineries will kick in and there'll be sales;
16 correct?

17 A. Yes.

18 Q. That would perhaps be one out of the 5,000 trials
19 that are run; isn't it?

20 A. It's .1 to the 37th power, so it's a very small
21 number.

22 Q. Okay, and isn't the purpose of running 5,000
23 trials to average all of those things out for the
24 purposes of coming up with a reasonable number?

25 A. Well, yeah, but now you're averaging in things

1 that can't happen. So you're assigning probabilities
2 to events where other factors or common sense would say
3 well, these outcomes could never happen because we
4 could never sell that much, so you wouldn't even be
5 making the marketing effort to all 37 if you hit the
6 first five. So I'm just saying that it's not a
7 realistic model because it includes outcomes that can't
8 happen.

9 Q. You don't know whether Packgen could have
10 produced these containers if necessary; do you?

11 A. That is correct, I don't know if they could have
12 produced containers for all 37 refineries. I just have
13 a strong feeling that they might not have been able to.

14 Q. Okay. Well, but you haven't been in the
15 facility, you haven't looked at their production, you
16 haven't seen whether they could run three shifts
17 instead of one or anything of that type?

18 A. You are correct.

19 Q. You also referred to the costs continuing to go
20 down since the date of the incident, but this was not
21 captured in simulation; correct?

22 A. Yes.

23 Q. Now, if the declining costs during the last six
24 years had been captured in the simulation, that would,
25 in fact, increase the lost profits; would it not?

1 A. Sure. I'm offering opinions about the
2 variability or the voracity of the model as a
3 mathematical tool. I recognize that that doesn't help
4 the defendants a whole lot. I'm here to give you the
5 correct answer.

6 Q. Okay, but you're not saying that all -- these
7 things you're talking about is somehow prejudicing the
8 defendants then?

9 A. No. Obviously that one, you know, had that -- I
10 was bringing it up for the sake of pointing out that
11 there was some things that worked for the defendant and
12 some things that worked for the plaintiff and many
13 things that don't work at all.

14 MR. OLAFSEN: Just looking at my outline, Your
15 Honor, to see whether there are things other than
16 inputs because I don't want to belabor the input issue.

17 Q. In your report, you do refer to Mr. Filler making
18 an assumption that revenues and costs would be constant
19 over ten years; correct?

20 A. Yes.

21 Q. And did you hear Mr. Filler's testimony today
22 that he was not assuming that prices and revenues would
23 never change, but that they would, in fact, even out
24 over ten years?

25 A. Well, I did hear him say that, but, of course,

1 that's not actually reflected in the model. What he's
2 got is a constant number and although he has made a
3 tacit assumption that that would even out over ten
4 years, the fact is that that's another source of
5 variability that's not captured in the model, it's not
6 captured in the simulation and that if they are going
7 to vary, but then even out over ten years, then once
8 again, we're sort of hitting the mark, but we don't
9 know whether -- I mean we're hitting the mark in the
10 sense that when we calculate the middle point, we're
11 probably okay under that assumption, but once again, we
12 have no idea about how credible the result is because
13 if there's a lot of variability in revenues and costs,
14 that's not reflected in the way he's done his
15 calculations.

16 Q. But we're finding out the costs were going down
17 which benefits the defendants not to include that.

18 A. I'm sorry, I didn't understand your question.
19 Could you ask me that again?

20 Q. A couple of minutes ago you testified we found
21 out that although variability and costs have not been
22 factored, the costs have actually gone down so that
23 benefits the defendants because by not using those for
24 these costs, the lost profits are lower?

25 A. I would agree. I mean your own expert said that

1 the costs were going down and that he didn't include it
2 so when he issues his next opinion, I'm sure that'll
3 come in.

4 Q. Well, there's not going to be any new opinions,
5 Mr. Cowan. I don't want you to be speculating on what
6 our expert is going to be doing. Simply testify, if
7 you would, about what your opinions are on what he has
8 done. In -- well, I think that's an input question
9 and I'll move off of that one then.

10 Have you reviewed the designation of the
11 catalyst industry expert in this case?

12 A. I've read it.

13 Q. Would you --

14 MR. BIXBY: Just to be clear, which expert,
15 Your Honor?

16 MR. OLAFSEN: Oh, I'm sorry. The defendants
17 have one too so let me be clear.

18 Q. Are you aware that the plaintiffs have designated
19 a gentleman named David Berman as an industry expert in
20 catalyst?

21 A. We spoke about him earlier so I was assuming that
22 you were still referring to him. Thank you.

23 Q. And I think you said you did review his report?

24 A. I read his report, yes.

25 Q. Would you agree that it's reasonable for a damage

1 expert such as Mr. Filler to rely on an expert such as
2 Mr. Berman?

3 A. Yes.

4 Q. In your report, you also question why there are
5 different distributions in the refinery simulations as
6 opposed to in the CRI simulation, which is no longer
7 Mr. Filler's opinion; do you recall that?

8 A. Yes.

9 Q. Are you aware now, after today, that, in fact,
10 different products were involved with different costs?

11 A. There's still no explanation on the part of your
12 expert about why he would choose one distribution that
13 ranges from minus infinity to plus infinity versus a
14 different distribution that had a very narrow range and
15 that was such a startling difference that I still had
16 to question it.

17 Q. But the normal distribution that you testified to
18 earlier in the CRI simulation, is it now your
19 understanding, after sitting here today, that that
20 simulation for CRI/Criterion is not going to be
21 presented as an opinion in this case?

22 A. I mean it's not going to be now, but at the time
23 that I was asked to review all these materials, it was
24 being used and, you know, Mr. Filler was -- used it at
25 the same time he was using the triangular distribution

1 for a marginally different product.

2 So I don't understand -- again, I have the same
3 concern about the choice of distributions, how
4 distributions were chosen, what tests were run and so
5 on. The methodology for how one chooses a
6 distribution, how one conducts the tests and how one
7 determines the parameters is all part of my opinion and
8 since he did this earlier and is now withdrawing it,
9 that doesn't mean that he didn't do it before, it just
10 means that you've withdrawn it.

11 Q. I understand. And you're saying that's why it's
12 in your report because -- before it hadn't been
13 withdrawn?

14 A. Well, it hadn't been withdrawn at the time that
15 my report was written, so certainly.

16 Q. One more question I think goes to parameters
17 rather than inputs is in your report, you say that if
18 Mr. Filler's using a ten percent chance of sale per
19 year, that it should come to a 65 percent market share
20 in year ten; do you recall that?

21 A. Yes.

22 Q. Would you agree that the reason it's less than
23 65 percent, in this case 51 market share, is because
24 under simulation, in some years there's no sales to
25 refineries; in fact, no sales to any refineries out of

1 5,000 trials?

2 A. I believe that's the case, but I also think that
3 that demonstrates -- since I came up with the
4 65 percent by doing some basic math as opposed to
5 running a simulation, I also think that what that
6 represents is that there's a certain variability in the
7 model and that if you ran those simulations a few more
8 times, you'd get 51 sometimes and you'd get 55
9 sometimes and you might get up to 65. 65 is the upper
10 bound.

11 Q. Did you hear Mr. Filler testify that if you run a
12 simulation again, you're going to come out with a
13 number that's very close to the numbers that were
14 presented today?

15 A. That's the principle -- well, that's true for
16 most of averages, but that wouldn't necessarily be true
17 for a cumulation of a percentage, but what he was
18 citing was essentially the central limit theorem which
19 comes out in every introductory statistics course.

20 Q. So you would agree, leaving aside right now the
21 65 percent, that if this simulation was run many times
22 over, you're going to come out with numbers very close
23 to the \$1.9 million number that was presented today?

24 A. With -- I would agree that if you used the exact
25 same inputs and you ran it over and over again, but

1 then, you know, why run it at all? You can just sit
2 down and do it with pencil and paper.

3 MR. OLAFSEN: No further questions.

4 THE COURT: Anything further?

5 MR. DUNITZ: I have nothing further, Your
6 Honor. I do see it's 4:30. I don't know if we would
7 be able to get Ms. Fannon, even her direct, completed
8 in a half hour so I --

9 THE COURT: Thank you, you may stand down,
10 sir. I enjoyed your testimony. I'm awfully glad you
11 weren't in my math class, I can tell you that. I think
12 you would have destroyed the bell curve.

13 THE WITNESS: No, sir, I try to raise
14 everybody up.

15 THE COURT: Thank you.

16 THE WITNESS: Thank you.

17 MR. DUNITZ: I apologize to the Court.

18 THE COURT: So what do you want to do?

19 MR. BIXBY: I think we could potentially take
20 five minutes and talk about it, but I think even if we
21 tell the Court it's going to take an hour versus an
22 hour and a half, I don't know that that gets us
23 anywhere.

24 The issue is rescheduling Nancy Fannon to conclude
25 the *Daubert* hearing and have the hearing begin with

1 her, going to her direct exam, cross-examination and
2 then that would be the conclusion and we could
3 potentially defer the briefing schedule until the end
4 of that presentation.

5 THE COURT: Sure.

6 MR. BIXBY: Obviously, I think, we are
7 prepared to go right now so the sooner the better from
8 our perspective.

9 THE COURT: All right. How long do you think
10 it would take?

11 MR. BIXBY: Combined or just our side, Your
12 Honor?

13 THE COURT: Well, I'm thinking combined.

14 MR. DUNITZ: It would take probably an hour on
15 direct.

16 MR. BIXBY: An hour, hour and a half direct
17 and then the question would be Kurt's cross and similar
18 to what he did today, I think that was 45 minutes to an
19 hour so about two and a half hours, perhaps.

20 THE COURT: I was thinking that I might be
21 able to do it tomorrow, but I think I can't. I'm going
22 to be here for an oral argument, but I have to be back
23 in Bangor so I don't think, given the length, I'm going
24 to be able to do it then. I might be able to do it
25 Monday. I know this is --

1 MR. BIXBY: I know I'm in Rhode Island on
2 Monday. I don't know that I have to be here. I would
3 like to see it be complete just because I'm involved in
4 the case, even though Jonathan would be handling it,
5 but it wouldn't be my preference to do that, but if
6 that's the only choice, that can certainly happen.

7 THE COURT: That's not your only choice.

8 MR. DUNITZ: I am available on Monday, I
9 think. Nancy is available on Monday.

10 THE COURT: Mr. Olafsen, would you be
11 available on Monday?

12 MR. OLAFSEN: Yes, Your Honor.

13 THE COURT: You see, I'm really afraid if I
14 don't do it Monday, you're probably looking at God
15 knows when.

16 MR. BIXBY: I think Monday may be the best
17 bet. I can trust the other folks to tell me what
18 happened.

19 THE COURT: All right.

20 MR. BIXBY: Your Honor, I don't know if it
21 matters, you're in Bangor, that's two hours from here,
22 but that's certainly possible. I mean Nancy Fannon is
23 local. She can do the two hour drive.

24 MR. OLAFSEN: I wouldn't have any objection to
25 that.

1 MR. BIXBY: If that opens up the scheduling.
2 THE COURT: Right. Well, let me give you a
3 couple of options. I have a hearing back here on
4 Monday that starts at 10:30. It's supposed to go on
5 for two hours, but I don't think it's going to take
6 anywhere near two hours. It's a default hearing,
7 basically, on a personal injury judgment. There's
8 nobody there to object so I think it will be fairly
9 straightforward. I would be surprised if it lasted
10 over an hour.

11 What I'm thinking of is either scheduling this for
12 11:30 and going -- we can proceed until we finish and
13 we can move Carol Swan, perhaps, or alternatively, if
14 you want to do it at 2:00, that may be a little
15 chancier because we need to be sure we have a court
16 reporter; is that right?

17 MR. DUNITZ: 11:30 is fine.

18 THE COURT: 11:30 okay for everybody? I know
19 you're in Rhode Island.

20 MR. BIXBY: I may try to get back. There is a
21 chance I can change that.

22 THE COURT: I'm glad to do whatever I can to
23 accommodate the parties. I realize that this is an
24 important case for both the plaintiff and defendant.
25 You've got your experts here and you need to -- it's

1 gone on for a while. You need to get this resolved.

2 MR. OLAFSEN: I can't rule out the possibility
3 that I might have some rebuttal testimony.

4 THE COURT: Yes.

5 MR. OLAFSEN: I can't imagine it will be more
6 than a half hour, but that's possible.

7 THE COURT: Right. Just to give you a sense
8 of where -- what I think about -- my initial reaction
9 is this. I'm trying to separate out the issue of
10 evidence and opinion because evidence is something that
11 the jury weighs and under the *Daubert* case, the
12 question really is the question of scientific
13 reliability.

14 If that scientific reliability is not held to the
15 same standard that scientists would necessarily hold,
16 because we're still dealing with more likely than not,
17 the difference from -- this overstates it, but the
18 difference from my perspective is -- because we get
19 physicians all the time, for example, who say the man
20 has a herniated disc and the herniated disc was caused
21 by the injury and you have the countervailing physician
22 who comes in and they say he doesn't have a herniated
23 disc and it wasn't caused by the injury and those are
24 not excludable because they are a difference of
25 opinion.

1 What *Daubert* really talks about, from my
2 perspective, is the difference between a doctor and a
3 witch doctor, in effect. That the concern is placing
4 something before the jury that sounds reliable
5 scientifically that is unreliable and misleads the
6 jury. That's my concern and I think that's *Daubert*'s
7 concern.

8 So my focus is not -- I appreciate the information
9 about the varied opinions that he had, but my sense is
10 that those varied opinions were a function of varied
11 information and that you can cross-examine the owner of
12 this business to a fare-thee-well about the different
13 information he gave his expert at different times and
14 the jury may well conclude whatever it concludes.

15 My real concern is the implication from Dr.
16 Cowan's testimony that at least some of it is so
17 scientifically unreliable that it would mislead the
18 jury.

19 So that's my -- that's where I'm focused from my
20 perspective. I'm going to hear what counsel -- if I
21 misread that, I'm going to hear what counsel have to
22 say about it, but that's my -- I think we can sort of
23 cut away some of the -- we can peel the onion back
24 quite a bit on this case and focus in on what is really
25 the critical issue and, that is, is this a doctor or a

1 witch doctor, is it misleading to the point -- is it so
2 misleading to the point that the jury shouldn't hear it
3 and that's what *Daubert* asks.

4 Do you have anything to say?

5 MR. BIXBY: I agree with everything you said.

6 THE COURT: All right. Anything?

7 MR. OLAFSEN: No, Your Honor.

8 THE COURT: Okay. Well, I'll see counsel -- I
9 find this really interesting. The experts are very,
10 very intelligent, well-verses people and, of course,
11 the lawyers are great, so I appreciate your effort and
12 I'll see you on Monday. 11:30, thank you.

13 (Proceeding adjourned to Monday, March 3,
14 2014, at 11:30 a.m.)

15 (End of day)

16 C E R T I F I C A T I O N

17 I, Dennis Ford, Official Court Reporter for the United
18 States District Court, District of Maine, certify the
19 foregoing is a correct transcript from the record of
20 proceedings in the above-entitled matter.

21 Dated: March 6, 2014

22 /s/ Dennis R. Ford

23 Official Court Reporter

24

25

\$	\$8.60 [1] - 123:13 \$85 [1] - 129:13 \$9,367,000 [1] - 67:21 \$941,484 [2] - 185:11, 186:22 "	106:15, 107:12 1-24 [1] - 2:15 1.2 [2] - 185:15, 187:4 1.25 [1] - 239:17 1.5 [1] - 239:17 1.8 [4] - 153:17, 153:22, 154:6, 154:25 1.9 [3] - 99:9, 152:19, 253:23 1.95 [2] - 99:4, 99:20 1.957 [3] - 182:19, 182:22, 182:23 1/10th [2] - 184:5, 243:2 1/4th [1] - 70:3 10 [29] - 20:19, 62:22, 63:22, 64:6, 66:2, 66:20, 104:10, 124:14, 148:8, 166:24, 167:5, 167:6, 167:10, 167:13, 168:11, 169:5, 169:22, 169:24, 169:25, 171:23, 211:4, 211:10, 211:14, 211:15, 211:16, 211:17, 211:18, 213:25, 244:13 100 [1] - 57:18 101 [1] - 81:3 10:30 [1] - 257:4 10:46 [1] - 70:10 10A [7] - 2:9, 6:15, 41:2, 41:3, 42:8, 42:9, 121:20 10th [2] - 71:9, 72:6 11 [11] - 2:19, 6:18, 33:16, 33:18, 124:6, 124:13, 129:16, 130:3, 131:3, 200:3 11.11184 [1] - 73:15 11.184 [1] - 33:24 11.4 [2] - 37:14, 37:18 11:08 [1] - 70:12 11:30 [5] - 257:12, 257:17, 257:18, 260:12, 260:14 12 [10] - 6:18, 12:1, 18:13, 18:22, 27:11, 27:13, 66:25, 75:5, 106:12, 203:1 12.45 [1] - 37:21 12/31/07 [2] - 38:6, 39:23 120 [7] - 52:22, 52:24, 158:12, 162:4, 165:13, 166:18, 1,103,725 [1] - 34:6 1,200 [1] - 106:21 1,261 [4] - 17:17, 18:11, 49:3, 66:24 1,379 [1] - 17:18 1,700 [3] - 106:13,	166:19 120,128/121 [1] - 2:15 121 [1] - 2:19 123 [4] - 64:2, 64:11, 66:1, 66:5 129 [1] - 2:19 12:10 [1] - 205:20 12:30 [1] - 214:23 12:57 [1] - 149:7 13 [19] - 2:20, 59:9, 74:25, 150:24, 151:5, 151:6, 151:15, 151:20, 151:23, 152:21, 152:24, 153:6, 154:15, 154:24, 155:10, 177:25, 202:1, 202:5, 218:9 13,000 [4] - 69:24, 75:3, 170:10, 181:17 13,244 [8] - 66:20, 67:1, 71:7, 71:13, 167:20, 181:5, 181:22, 182:16 13,874 [2] - 181:8, 182:2 13.5 [2] - 164:6, 164:9 131 [1] - 2:20 13A [26] - 2:9, 6:16, 6:17, 57:24, 59:12, 63:3, 70:16, 72:13, 75:17, 105:10, 105:20, 123:7, 150:23, 151:2, 151:18, 153:16, 153:17, 154:4, 154:25, 155:6, 167:4, 177:13, 178:8, 179:2, 180:24 14 [3] - 2:10, 6:20, 133:23 141 [3] - 131:11, 138:14, 138:20 148 [1] - 30:22 148,000 [1] - 30:15 149 [1] - 183:8 149,000 [1] - 30:15 15 [5] - 2:10, 6:20, 70:8, 98:8, 148:8 15,000 [2] - 66:24, 66:25 15.45 [1] - 122:25 150 [1] - 2:20 1500 [1] - 157:2 152 [1] - 57:25 156 [1] - 1:17 16,000 [1] - 181:19 162 [1] - 2:21 167 [1] - 30:22	16A [3] - 2:11, 6:23, 7:2 17 [21] - 2:11, 2:21, 6:20, 43:5, 57:8, 57:16, 58:5, 58:16, 58:17, 58:19, 58:22, 60:21, 67:17, 67:21, 91:17, 163:13, 177:3, 178:12, 194:6, 243:22 17,000 [1] - 181:19 17,249 [1] - 182:1 173 [1] - 2:21 179 [1] - 57:25 18 [8] - 2:12, 6:20, 61:14, 61:17, 61:18, 61:23, 110:22, 178:13 18,117,137/6 [1] - 2:4 180 [1] - 123:20 183 [2] - 30:17, 30:18 183,035 [1] - 31:16 184/184 [1] - 2:16 186 [1] - 30:20 186,283 [1] - 31:17 187/187 [2] - 2:17, 2:17 188 [1] - 2:2 189 [1] - 30:22 19 [12] - 2:21, 152:25, 153:4, 174:8, 174:10, 174:11, 174:21, 179:8, 196:5 191/143 [1] - 2:16 1926 [2] - 37:13, 37:24 194 [1] - 2:2 194/6 [1] - 2:5 196 [1] - 136:6 197 [2] - 2:2, 139:3 1980 [1] - 199:5 19A [13] - 2:12, 6:20, 75:13, 75:14, 153:4, 174:10, 174:11, 179:8, 180:19, 193:9, 193:10, 196:9 1:00 [1] - 144:16 1:51 [1] - 149:9 1A [27] - 2:4, 6:4, 6:15, 18:4, 18:5, 18:6, 19:1, 20:2, 20:5, 25:17, 26:1, 26:18, 32:12, 32:25, 33:13, 34:2, 34:7, 43:11, 43:18, 44:17, 49:15, 117:12, 120:2, 121:20, 137:23, 138:3 1st [1] - 46:14
-----------	--	---	--	--

2	3	4	5
<p>2 [17] - 2:5, 2:16, 6:15, 8:8, 30:1, 32:23, 66:19, 123:12, 129:12, 144:3, 144:4, 167:4, 187:21, 192:5, 201:22, 202:3, 202:25</p> <p>2,000 [2] - 66:18, 171:9</p> <p>2,000,978 [1] - 185:3</p> <p>2,200 [2] - 75:1, 106:5</p> <p>2,978,882 [2] - 34:5, 185:25</p> <p>2.9 [2] - 185:22, 186:5</p> <p>20 [16] - 2:13, 6:20, 37:17, 39:12, 69:11, 71:5, 72:21, 92:19, 103:19, 110:21, 110:22, 123:22, 169:21, 189:20, 213:6, 242:4</p> <p>20-minute [1] - 70:8</p> <p>200 [1] - 129:14</p> <p>2000 [2] - 71:3, 125:7</p> <p>2002 [2] - 58:12, 78:13</p> <p>2003 [6] - 15:1, 16:22, 107:24, 190:17, 236:22, 237:2</p> <p>2004 [6] - 11:22, 11:24, 185:9, 185:18, 186:20, 186:21</p> <p>2005 [4] - 185:11, 186:21, 186:22, 237:2</p> <p>2006 [3] - 16:23, 186:25</p> <p>2007 [14] - 16:25, 17:8, 19:15, 37:13, 37:24, 40:25, 43:23, 48:8, 48:22, 108:22, 124:15, 141:6, 185:18, 187:4</p> <p>2008 [17] - 15:2, 16:19, 26:5, 46:13, 53:11, 71:4, 75:15, 102:8, 125:9, 151:9, 151:11, 154:24, 162:3, 175:14, 175:16, 180:12, 222:4</p> <p>2009 [4] - 71:4, 175:9, 175:16, 175:21</p> <p>2010 [2] - 11:25, 105:25</p> <p>2011 [13] - 74:25, 106:5, 106:13,</p>	<p>151:9, 151:11, 154:24, 171:9, 175:9, 175:11, 175:17, 175:22, 175:25</p> <p>2012 [16] - 11:22, 75:1, 75:4, 94:20, 94:22, 102:3, 102:9, 106:8, 106:10, 106:13, 113:7, 113:8, 150:21, 162:5, 170:21, 171:9</p> <p>2013 [5] - 71:6, 75:1, 75:15, 150:21, 170:9</p> <p>2014 [3] - 1:18, 260:14, 260:21</p> <p>2017 [2] - 185:21, 187:7</p> <p>2018 [1] - 171:17</p> <p>20th [1] - 37:23</p> <p>21 [7] - 2:13, 6:20, 73:21, 111:5, 133:10, 152:24, 152:25</p> <p>21-page [1] - 218:24</p> <p>2104 [1] - 46:14</p> <p>215 [1] - 30:22</p> <p>219 [1] - 2:2</p> <p>21st [1] - 142:21</p> <p>22 [8] - 2:14, 6:21, 10:21, 44:13, 44:14, 120:17, 120:18, 128:21</p> <p>225 [8] - 129:3, 129:18, 135:8, 139:3, 139:4, 139:5, 145:23, 146:2</p> <p>227 [1] - 71:5</p> <p>229 [1] - 30:21</p> <p>23 [1] - 38:8</p> <p>23.35 [4] - 44:15, 44:21, 44:25, 76:2</p> <p>233 [1] - 30:21</p> <p>24 [6] - 37:20, 120:20, 120:25, 201:16, 203:3</p> <p>24/6 [1] - 2:6</p> <p>240 [2] - 30:18, 30:20</p> <p>249,800 [1] - 164:24</p> <p>25 [12] - 20:22, 20:24, 20:25, 69:20, 71:7, 81:16, 98:1, 159:13, 161:7, 161:22, 170:10, 189:20</p> <p>250 [2] - 129:18, 139:5</p> <p>26 [1] - 39:14</p> <p>26.38 [1] - 43:6</p> <p>26.4 [3] - 33:22, 33:23, 74:2</p> <p>26.55 [1] - 43:7</p> <p>260 [1] - 52:18</p> <p>27.2 [3] - 39:10, 40:17, 42:22</p> <p>27/6 [3] - 2:6, 2:7, 2:7</p> <p>275 [2] - 129:18, 139:5</p> <p>27th [1] - 1:18</p> <p>29 [1] - 32:8</p> <p>292 [1] - 179:21</p> <p>2:00 [2] - 147:21, 257:14</p> <p>2:12-cv-80-JAW [1] - 1:5</p> <p>3 [24] - 2:5, 2:16, 6:15, 47:18, 54:15, 63:24, 64:4, 101:22, 102:13, 102:20, 156:16, 167:4, 177:2, 185:5, 185:8, 187:19, 188:8, 188:9, 188:14, 195:4, 201:22, 202:25, 260:13</p> <p>3,000 [1] - 171:10</p> <p>3,275 [1] - 181:13</p> <p>3,375 [1] - 182:3</p> <p>3,600 [1] - 106:10</p> <p>3,637 [3] - 71:6, 75:2, 170:9</p> <p>3,887 [1] - 66:19</p> <p>3.1 [2] - 42:22, 43:3</p> <p>3.4 [1] - 141:5</p> <p>30 [18] - 39:14, 39:21, 52:13, 57:13, 60:10, 122:25, 171:3, 213:9, 213:10, 213:11, 213:22, 244:5, 244:6, 244:13, 244:14, 244:15, 244:23, 244:24</p> <p>30-month [4] - 170:18, 241:18, 243:19, 244:4</p> <p>314912 [1] - 41:6</p> <p>31499 [1] - 41:6</p> <p>31st [2] - 34:19, 171:17</p> <p>32 [4] - 163:17, 163:24, 164:3, 164:23</p> <p>32,582 [1] - 33:22</p> <p>33 [1] - 187:21</p> <p>345 [1] - 66:4</p> <p>35 [1] - 43:1</p> <p>361 [1] - 179:21</p> <p>37 [71] - 10:17, 13:20, 31:22, 50:18, 52:1, 52:2, 53:2, 53:12, 57:8, 59:1, 61:6, 61:18, 63:15, 65:23, 66:15, 66:20, 67:19, 67:25, 71:3, 71:6, 73:14, 73:16, 74:1, 75:19, 75:24, 76:12, 97:12, 97:23, 99:13, 99:15, 104:22, 157:5, 158:6, 158:18, 159:9, 161:24, 162:22, 162:25, 163:6, 163:8, 163:10, 164:5, 164:14, 165:8, 165:14, 165:21, 165:22, 165:23, 166:3, 166:6, 167:23, 168:14, 170:22, 171:25, 174:13, 177:7, 183:3, 184:7, 210:24, 213:23, 214:2, 214:3, 221:20, 221:22, 237:4, 246:15, 247:5, 247:12</p> <p>37/6 [1] - 2:8</p> <p>379 [1] - 61:7</p> <p>379.75 [2] - 66:3, 178:17</p> <p>37th [1] - 246:20</p> <p>385 [2] - 179:21</p> <p>39 [3] - 124:2, 124:6, 124:13</p> <p>3:02 [1] - 197:2</p> <p>3:13 [1] - 197:4</p> <p>4 [29] - 2:6, 2:17, 2:19, 6:15, 8:3, 12:4, 24:11, 24:13, 63:24, 64:4, 67:23, 71:19, 85:11, 121:14, 121:18, 122:1, 122:4, 123:1, 123:8, 123:9, 123:10, 123:12, 125:3, 151:8, 167:4, 188:8, 188:12, 188:13, 202:25</p> <p>4,000 [1] - 47:18</p> <p>4,557,000 [1] - 42:21</p> <p>4,789,257 [3] - 182:16, 182:17, 185:4</p> <p>4.5 [3] - 132:13, 133:18, 192:14</p> <p>4.6 [3] - 144:23, 192:8, 193:2</p> <p>4.7 [5] - 184:10, 192:8, 192:14, 192:15, 193:1</p> <p>4.715 [1] - 136:21</p> <p>4.73 [2] - 136:21, 143:10</p> <p>4.730 [1] - 142:15</p> <p>4.731 [1] - 143:9</p> <p>4.8 [3] - 184:15, 184:16, 186:9</p> <p>40 [2] - 60:9, 62:21</p> <p>40/6 [2] - 2:8, 2:9</p> <p>400 [3] - 71:5, 106:4, 151:15</p> <p>41,111 [1] - 183:10</p> <p>42.4 [1] - 73:25</p> <p>420 [1] - 105:16</p> <p>422 [1] - 179:21</p> <p>435 [1] - 187:21</p> <p>44,111 [1] - 66:5</p> <p>45 [3] - 147:11, 148:2, 255:18</p> <p>450 [2] - 186:3, 187:18</p> <p>4:30 [1] - 254:6</p>	<p>5 [38] - 2:6, 2:17, 2:20, 6:15, 12:4, 20:14, 20:19, 28:5, 28:9, 29:7, 31:10, 31:23, 33:20, 33:21, 39:18, 54:16, 71:19, 85:11, 101:22, 102:9, 102:13, 102:21, 105:18, 132:1, 132:15, 152:4, 152:8, 156:16, 164:5, 167:4, 177:2, 188:12, 188:13, 201:23, 202:25, 203:2</p> <p>5,000 [15] - 55:14, 63:6, 66:15, 155:21, 155:22, 156:4, 156:5, 156:7, 181:23, 182:4, 183:25, 184:3, 246:18, 246:22, 253:1</p> <p>5.4 [2] - 43:2, 43:3</p> <p>50 [18] - 5:17, 57:22, 62:22, 68:3, 68:4, 69:4, 69:20, 69:24, 94:2, 127:9, 127:11, 127:12, 159:13, 161:7, 161:23, 167:23, 169:24, 178:5</p> <p>500 [2] - 37:12, 171:9</p>	

<p>51 [9] - 50:2, 67:25, 68:2, 68:7, 68:10, 89:8, 104:22, 252:23, 253:8 52 [2] - 93:24, 94:2 53 [1] - 133:9 54 [2] - 133:6, 133:23 55 [1] - 253:8 557 [3] - 71:6, 75:1, 106:8 56 [1] - 134:9 57,176,243/6 [1] - 2:11 57,62,104,150/6 [1] - 2:9 574 [1] - 187:1</p>	<p>104:11, 167:5, 187:7, 201:23, 202:25 7.05 [1] - 37:14 7.7 [1] - 187:8 70 [1] - 236:10 71 [3] - 41:25, 42:1, 42:2 7127 [2] - 41:1, 41:2 72 [2] - 192:19, 192:21 72/6 [1] - 2:13 73/6 [1] - 2:13 75,152,173,192,195/6 [1] - 2:12 756 [1] - 130:20 769,000 [1] - 187:21 79 [1] - 2:2</p>	<p>957 [1] - 154:5 96 [1] - 177:17 96.9 [1] - 42:22 99.52 [1] - 72:19 994 [1] - 165:5 9:00 [2] - 1:18, 8:18 9:15 [1] - 8:18</p>	<p>accountants [3] - 20:7, 30:19, 83:1 accounted [6] - 36:2, 50:24, 51:17, 75:23, 215:18, 239:6 accounting [7] - 20:7, 20:9, 20:12, 20:18, 27:8, 207:14, 215:9 accounts [7] - 27:15, 27:16, 28:1, 28:12, 31:3, 51:5 accredited [2] - 80:20, 80:21 accurate [8] - 23:1, 23:3, 24:9, 122:12, 122:16, 122:23, 127:14, 156:25 acknowledgement [1] - 83:8 ACTION [1] - 1:4 actions [1] - 158:24 actively [1] - 168:24 actual [43] - 16:13, 16:15, 19:10, 19:11, 20:12, 70:20, 71:14, 71:23, 74:22, 75:13, 75:18, 90:21, 105:14, 105:16, 105:23, 122:8, 142:5, 150:17, 151:17, 152:23, 153:19, 154:11, 154:16, 154:18, 155:3, 155:4, 155:11, 155:12, 175:20, 193:11, 204:19, 204:20, 204:23, 210:16, 223:1, 223:6, 223:20, 224:6, 224:18, 224:19, 224:21, 227:17 actuaries [1] - 35:17 add [7] - 37:12, 38:17, 42:14, 43:6, 53:24, 185:4, 225:2 added [4] - 179:3, 179:19, 184:19, 227:22 adding [6] - 30:2, 30:3, 35:5, 37:22, 72:25, 239:20 addition [1] - 58:4 additional [1] - 7:5 address [4] - 63:10, 200:21, 201:6 adequate [2] - 205:17, 238:17 adequately [1] - 220:3</p>	<p>adjourned [1] - 260:13 adjust [4] - 35:20, 43:12, 43:13, 82:9 adjusted [7] - 34:15, 34:20, 34:21, 35:24, 44:20, 74:7, 128:21 adjustment [1] - 30:13 adjustments [7] - 27:9, 28:15, 29:5, 30:13, 30:20, 31:9 Administration [1] - 236:13 administrative [4] - 12:10, 28:3, 29:3, 29:23 admit [1] - 5:16 admitted [8] - 6:21, 7:3, 120:22, 121:12, 143:22, 144:6, 188:8, 188:13 advantage [1] - 116:5 advantages [4] - 47:24, 48:9, 59:3, 116:14 advertising [1] - 56:7 affect [4] - 25:25, 51:18, 215:14, 229:10 affected [7] - 43:1, 76:21, 79:15, 126:16, 193:24, 194:3, 194:7 afraid [1] - 256:13 after-tax [2] - 36:23, 43:1 afterwards [1] - 171:5 age [3] - 35:6, 162:18, 162:21 aggressive [1] - 103:21 ago [7] - 3:23, 4:16, 5:8, 74:23, 154:15, 218:9, 249:20 agree [21] - 68:20, 186:23, 219:8, 229:12, 229:15, 229:16, 229:25, 230:3, 231:21, 233:7, 233:10, 234:18, 236:5, 237:23, 245:17, 249:25, 250:25, 252:22, 253:20, 253:24, 260:5 agreement [1] - 218:22 ahead [2] - 3:8, 217:13 aided [1] - 1:25 air [1] - 242:5 al [1] - 1:9</p>
<p>6</p> <p>6 [41] - 2:7, 6:15, 12:4, 28:5, 28:10, 28:13, 29:6, 29:7, 29:14, 29:15, 30:1, 31:2, 31:7, 31:9, 31:12, 31:14, 52:18, 63:24, 63:25, 64:1, 64:10, 66:1, 71:19, 85:11, 91:17, 98:2, 102:9, 130:19, 130:20, 131:11, 138:14, 138:20, 167:5, 201:23, 202:22, 202:25, 210:12, 260:21 6.1 [3] - 130:13, 132:13, 133:18 6.3 [1] - 136:20 6.5 [3] - 202:4, 202:5, 218:9 6.6 [2] - 130:14, 132:13 6.7 [3] - 136:20, 210:7, 210:16 6.8 [1] - 184:15 6/6 [5] - 2:5, 2:10, 2:10, 2:11, 2:14 60 [2] - 130:19, 200:3 60,000 [2] - 210:8, 210:20 604 [1] - 130:21 61/6 [1] - 2:12 65 [6] - 252:19, 252:23, 253:4, 253:9, 253:21</p>	<p>8</p> <p>8 [9] - 42:25, 44:11, 54:16, 63:24, 106:4, 167:5, 177:18, 201:23, 202:25 8.595 [1] - 151:15 8.2 [1] - 67:17 82 [1] - 37:25 85 [4] - 57:23, 71:4, 105:24, 106:2 879 [4] - 152:2, 153:8, 153:10, 153:11 89 [1] - 58:1 8A [11] - 2:8, 6:15, 40:13, 40:14, 40:15, 42:4, 42:10, 42:11, 43:20, 44:3, 44:13</p>	<p>9</p> <p>9 [14] - 2:2, 2:8, 6:15, 37:8, 37:10, 42:23, 63:24, 64:4, 106:4, 167:5, 180:12, 186:25, 211:17, 211:18 90 [21] - 46:3, 46:9, 61:8, 65:2, 65:19, 67:10, 127:1, 159:15, 167:15, 167:19, 168:19, 172:18, 172:25, 173:7, 173:18, 178:21, 228:6, 228:8, 228:18, 228:20, 232:10 9004 [1] - 44:23 909,073 [1] - 151:24 95 [5] - 61:7, 71:5, 178:20, 184:14, 228:5</p>	<p>9</p> <p>9 [14] - 2:2, 2:8, 6:15, 37:8, 37:10, 42:23, 63:24, 64:4, 106:4, 167:5, 180:12, 186:25, 211:17, 211:18 90 [21] - 46:3, 46:9, 61:8, 65:2, 65:19, 67:10, 127:1, 159:15, 167:15, 167:19, 168:19, 172:18, 172:25, 173:7, 173:18, 178:21, 228:6, 228:8, 228:18, 228:20, 232:10 9004 [1] - 44:23 909,073 [1] - 151:24 95 [5] - 61:7, 71:5, 178:20, 184:14, 228:5</p>	
<p>7</p> <p>7 [18] - 2:7, 6:15, 8:3, 15:2, 28:5, 28:23, 28:24, 29:4, 31:8, 46:13, 64:16, 104:5,</p>	<p>Accountant [1] - 220:3</p>	<p>accountants [3] - 20:7, 30:19, 83:1 accounted [6] - 36:2, 50:24, 51:17, 75:23, 215:18, 239:6 accounting [7] - 20:7, 20:9, 20:12, 20:18, 27:8, 207:14, 215:9 accounts [7] - 27:15, 27:16, 28:1, 28:12, 31:3, 51:5 accredited [2] - 80:20, 80:21 accurate [8] - 23:1, 23:3, 24:9, 122:12, 122:16, 122:23, 127:14, 156:25 acknowledgement [1] - 83:8 ACTION [1] - 1:4 actions [1] - 158:24 actively [1] - 168:24 actual [43] - 16:13, 16:15, 19:10, 19:11, 20:12, 70:20, 71:14, 71:23, 74:22, 75:13, 75:18, 90:21, 105:14, 105:16, 105:23, 122:8, 142:5, 150:17, 151:17, 152:23, 153:19, 154:11, 154:16, 154:18, 155:3, 155:4, 155:11, 155:12, 175:20, 193:11, 204:19, 204:20, 204:23, 210:16, 223:1, 223:6, 223:20, 224:6, 224:18, 224:19, 224:21, 227:17 actuaries [1] - 35:17 add [7] - 37:12, 38:17, 42:14, 43:6, 53:24, 185:4, 225:2 added [4] - 179:3, 179:19, 184:19, 227:22 adding [6] - 30:2, 30:3, 35:5, 37:22, 72:25, 239:20 addition [1] - 58:4 additional [1] - 7:5 address [4] - 63:10, 200:21, 201:6 adequate [2] - 205:17, 238:17 adequately [1] - 207:22</p>	<p>adjourned [1] - 260:13 adjust [4] - 35:20, 43:12, 43:13, 82:9 adjusted [7] - 34:15, 34:20, 34:21, 35:24, 44:20, 74:7, 128:21 adjustment [1] - 30:13 adjustments [7] - 27:9, 28:15, 29:5, 30:13, 30:20, 31:9 Administration [1] - 236:13 administrative [4] - 12:10, 28:3, 29:3, 29:23 admit [1] - 5:16 admitted [8] - 6:21, 7:3, 120:22, 121:12, 143:22, 144:6, 188:8, 188:13 advantage [1] - 116:5 advantages [4] - 47:24, 48:9, 59:3, 116:14 advertising [1] - 56:7 affect [4] - 25:25, 51:18, 215:14, 229:10 affected [7] - 43:1, 76:21, 79:15, 126:16, 193:24, 194:3, 194:7 afraid [1] - 256:13 after-tax [2] - 36:23, 43:1 afterwards [1] - 171:5 age [3] - 35:6, 162:18, 162:21 aggressive [1] - 103:21 ago [7] - 3:23, 4:16, 5:8, 74:23, 154:15, 218:9, 249:20 agree [21] - 68:20, 186:23, 219:8, 229:12, 229:15, 229:16, 229:25, 230:3, 231:21, 233:7, 233:10, 234:18, 236:5, 237:23, 245:17, 249:25, 250:25, 252:22, 253:20, 253:24, 260:5 agreement [1] - 218:22 ahead [2] - 3:8, 217:13 aided [1] - 1:25 air [1] - 242:5 al [1] - 1:9</p>	

alert [1] - 4:21	209:5, 210:22,	appearances [1] - 3:7	40:20, 42:13, 42:15	Auburn [3] - 11:25,
alleged [2] - 108:19,	210:23, 216:21,	applicable [1] - 56:1	assign [2] - 56:11,	13:5, 17:4
222:12	220:6, 220:9,	application [4] - 81:8,	60:3	audit [1] - 220:11
allocate [3] - 31:20,	220:20, 222:12,	81:15, 200:14, 221:9	assignable [1] - 59:18	auditor [1] - 20:17
31:21	223:4, 223:18,	Application [1] -	assigned [3] - 39:2,	audits [3] - 204:22,
allocated [1] - 73:11	225:15, 225:25,	82:19	40:4, 230:12	220:20
allocations [1] - 32:4	226:1, 226:6,	applications [1] - 81:7	assigning [2] - 51:14,	August [6] - 16:25,
allow [4] - 11:6, 54:4,	240:18, 243:6,	applied [9] - 18:3,	247:1	17:7, 19:15, 113:7,
67:11, 85:8	243:10	45:3, 47:1, 59:7,	assist [1] - 58:18	113:8, 137:20
allowed [1] - 32:9	analyst [4] - 20:17,	75:22, 110:23,	associated [5] -	author [1] - 83:6
almost [3] - 46:14,	83:2, 92:11	198:19, 198:25,	38:11, 75:24,	authored [1] - 82:17
144:16, 154:15	analysts [1] - 40:8	220:1	182:16, 183:16,	authors [1] - 81:14
alone [1] - 159:11	analyze [3] - 159:22,	applies [2] - 27:13,	230:11	automobiles [1] -
alternative [10] - 6:19,	169:2, 222:14	46:1	Association [1] -	77:18
133:20, 176:19,	analyzed [1] - 159:21	apply [8] - 27:11, 45:1,	55:23	available [10] - 20:10,
191:21, 191:24,	analyzing [1] - 94:3	46:16, 61:24, 61:25,	assume [10] - 47:5,	35:16, 35:18, 53:18,
212:12, 212:13,	anchored [1] - 239:13	75:21, 100:4, 231:12	74:4, 76:11, 76:25,	53:25, 62:5, 246:6,
212:14, 231:9,	annual [13] - 11:21,	applying [4] - 56:23,	96:21, 145:5,	256:8, 256:9, 256:11
232:10	27:9, 34:8, 40:25,	73:22, 76:4, 126:23	171:15, 172:13,	average [95] - 17:16,
alternatively [1] -	43:23, 57:13, 75:15,	apportion [1] - 31:24	172:15, 177:9	18:11, 21:4, 21:8,
257:13	94:5, 94:7, 141:6,	apportioning [1] -	assumed [6] - 34:17,	22:5, 22:16, 28:21,
alternatives [1] -	163:8, 170:17,	31:24	102:12, 116:11,	32:6, 32:9, 36:18,
235:14	175:20	appreciate [2] - 259:8,	116:17, 158:8, 173:4	36:25, 37:15, 37:24,
aluminum [3] - 17:3,	annualize [1] - 187:19	260:11	assumes [5] - 35:12,	39:10, 40:11, 40:15,
194:14	annualized [2] -	approach [3] - 32:5,	96:18, 177:14,	40:18, 40:22, 41:18,
America [6] - 52:23,	243:24, 244:7	45:14, 210:23	177:15, 178:1	41:24, 43:3, 43:5,
161:25, 162:3,	annually [1] - 164:25	appropriate [7] -	assuming [8] -	43:6, 44:20, 44:24,
162:19, 166:4,	answer [27] - 38:17,	103:4, 114:4,	114:21, 147:18,	52:13, 73:16, 73:17,
166:19	45:18, 51:17, 54:11,	167:14, 168:12,	162:8, 172:21,	76:2, 86:3, 86:24,
American [9] - 41:5,	54:17, 58:24, 60:8,	169:6, 169:22, 206:4	210:15, 245:10,	119:2, 119:3, 119:5,
55:22, 70:4, 105:4,	60:9, 60:11, 60:12,	approval [2] - 169:13,	248:22, 250:21	119:7, 119:8,
162:24, 163:5,	60:15, 81:22, 86:16,	169:18	assumption [18] -	119:10, 119:11,
164:10, 164:17,	91:20, 92:17, 94:6,	April [7] - 15:2, 17:18,	32:15, 45:23, 47:9,	119:12, 119:13,
164:19	107:8, 111:7,	26:5, 46:13, 47:15,	64:19, 64:24, 64:25,	119:15, 121:15,
amount [18] - 38:6,	111:19, 114:15,	53:11, 76:23	72:9, 76:10, 76:15,	122:4, 122:7, 122:9,
49:16, 52:6, 52:7,	130:11, 134:1,	arbitrary [2] - 216:7,	96:22, 156:9, 170:7,	122:13, 122:14,
53:1, 67:18, 76:6,	134:16, 172:1,	231:20	177:21, 211:4,	122:16, 123:2,
127:1, 128:16,	172:4, 183:1, 248:5	areas [1] - 82:12	248:18, 249:3,	123:3, 123:14,
128:24, 134:11,	answered [3] - 89:3,	111:3, 133:10	249:11	141:4, 141:16,
135:23, 163:9,	111:3, 133:10	argue [1] - 233:10	assumptions [6] -	149:14, 149:16,
177:6, 183:6,	answering [1] - 58:18	argument [2] - 238:16,	134:21, 140:13,	149:21, 150:14,
183:15, 213:16,	answers [3] - 40:10,	255:22	170:6, 191:18,	153:24, 154:9,
213:17	77:10, 168:15	arguments [1] -	191:21, 192:3	156:5, 156:8,
amounts [4] - 29:20,	anticipate [3] - 8:14,	207:25	asymptotic [1] - 232:1	156:24, 162:18,
35:25, 39:1, 166:15	51:8, 148:18	arm [1] - 4:16	attached [4] - 120:9,	162:21, 171:4,
amusing [1] - 232:24	anticipated [2] -	armed [2] - 5:4, 192:4	219:4, 219:5, 219:7	181:23, 183:22,
analogy [1] - 55:16	13:17, 184:19	arrangements [1] -	attempt [4] - 49:1,	184:15, 184:16,
analyses [1] - 236:15	anualization [1] -	3:25	115:7, 115:13,	201:25, 202:1,
analysis [43] - 31:2,	244:21	arrived [2] - 117:13,	116:23	202:2, 202:3, 205:5,
33:19, 46:6, 47:5,	anyway [7] - 5:13,	166:23	attempting [4] - 89:5,	205:6, 209:17,
77:16, 96:17, 96:18,	96:9, 146:2, 197:12,	arrives [1] - 159:24	89:6, 230:1, 230:3	209:18, 209:19,
97:6, 107:25,	217:11, 240:14,	arriving [1] - 169:12	attempts [1] - 222:13	209:20, 209:21,
109:10, 154:3,	243:15	art [1] - 51:4	attention [1] - 235:23	216:23, 238:23,
155:18, 157:8,	apologies [2] - 120:2,	aside [3] - 226:17,	attorney's [1] - 12:23	239:2, 239:4, 239:9,
157:21, 161:4,	121:23	241:20, 253:20	106:23, 107:12	239:21, 240:3,
165:21, 165:23,	apologize [4] - 62:2,	aspect [2] - 76:10,	attributable [2] -	244:12, 244:14,
166:5, 174:16,	143:11, 238:9,	200:12	106:23, 107:12	244:15, 245:17,
185:19, 186:4,	254:17	assembling [1] - 5:4	attributed [3] - 90:19,	246:23
187:16, 199:15,	Appearances [1] -	asset [2] - 41:14, 42:6	106:15, 175:18	averaged [4] - 25:24,
200:15, 201:4,	1:19	assets [5] - 36:20,	attributing [1] -	117:23, 118:19,

<p>123:4 averages [12] - 37:14, 44:6, 54:23, 209:17, 209:20, 238:23, 239:1, 239:3, 239:4, 239:23, 240:7, 253:16 averaging [8] - 209:24, 210:4, 210:19, 216:24, 217:2, 217:3, 240:11, 246:25 avoided [1] - 10:4 aware [21] - 79:3, 100:21, 102:24, 103:1, 103:20, 108:13, 108:17, 109:6, 109:7, 129:10, 159:9, 159:17, 172:5, 172:10, 175:24, 196:8, 235:17, 235:25, 243:22, 250:18, 251:9 awful [1] - 226:4 awfully [1] - 254:10 awkward [1] - 225:4 awkwardly [1] - 4:16 awnings [4] - 87:10, 87:11</p>	<p>199:19 barriers [2] - 103:13 base [7] - 56:16, 56:17, 74:16, 100:2, 107:20, 167:25 baseball [1] - 55:15 based [42] - 4:9, 15:18, 55:12, 62:4, 64:15, 67:5, 69:5, 75:10, 114:24, 116:8, 116:14, 118:12, 128:19, 130:9, 132:10, 148:13, 158:9, 158:11, 158:13, 159:10, 166:25, 170:2, 175:19, 182:12, 182:19, 182:22, 182:24, 184:20, 185:25, 186:3, 189:8, 191:18, 204:16, 204:19, 205:1, 205:24, 210:7, 225:20, 227:9, 229:7, 245:3 basic [3] - 198:22, 202:8, 253:4 basis [14] - 29:5, 53:17, 65:22, 85:2, 100:11, 118:15, 126:15, 126:19, 133:14, 170:17, 170:18, 178:11, 213:7, 232:18 bearing [3] - 36:24, 42:16, 42:20 became [5] - 15:1, 16:23, 53:24, 64:20, 199:7 become [5] - 52:25, 79:3, 157:3, 199:25, 215:10 becoming [1] - 232:1 before-tax [1] - 126:19 began [2] - 173:14, 173:21 begin [2] - 29:13, 254:25 beginning [4] - 8:18, 8:19, 29:14, 193:16 behind [2] - 152:16, 217:18 belabor [1] - 248:16 believes [1] - 225:18 bell [2] - 206:23, 254:12 belong [2] - 31:4, 41:16 belonged [1] - 39:25</p>	<p>below [9] - 24:23, 28:12, 28:14, 29:21, 210:12, 228:8, 228:17, 228:19, 232:9 benefit [2] - 115:25, 126:25 benefits [3] - 24:6, 249:17, 249:23 Berman [22] - 47:20, 48:11, 52:3, 53:2, 59:3, 95:16, 101:21, 101:25, 102:8, 103:6, 164:21, 165:25, 166:14, 166:15, 176:24, 234:25, 235:17, 235:18, 235:22, 235:24, 250:19, 251:2 Berman's [15] - 13:24, 69:5, 95:7, 95:9, 95:23, 95:24, 96:3, 96:7, 100:12, 103:18, 103:20, 114:25, 163:7, 166:17, 235:25 Berry [22] - 2:15, 3:6, 96:20, 97:2, 98:14, 98:19, 98:21, 99:20, 106:16, 106:19, 106:23, 107:12, 120:13, 121:3, 144:1, 144:4, 175:15, 175:18, 176:3, 176:7, 192:5 BERRY [1] - 1:9 best [29] - 22:16, 57:19, 57:25, 59:17, 59:18, 60:2, 60:13, 60:17, 60:20, 61:1, 61:23, 61:25, 62:6, 62:18, 63:1, 63:15, 63:19, 78:6, 127:17, 165:15, 165:17, 166:6, 177:14, 178:20, 225:21, 227:4, 227:16, 228:2, 256:16 best-case [13] - 57:19, 57:25, 59:17, 60:2, 60:13, 60:17, 60:20, 62:6, 63:1, 63:15, 177:14, 227:4, 227:16 bet [1] - 256:17 beta [1] - 231:14 better [7] - 4:17, 215:10, 240:15, 242:3, 242:13, 255:7</p>	<p>between [37] - 8:3, 15:15, 31:20, 31:24, 32:10, 34:4, 39:14, 54:15, 54:16, 55:18, 59:21, 63:12, 64:11, 64:14, 66:3, 69:13, 88:16, 88:24, 89:3, 90:16, 90:21, 91:22, 106:13, 108:14, 112:2, 125:24, 128:11, 133:11, 151:19, 154:24, 172:5, 208:8, 208:14, 208:16, 222:14, 239:16, 259:2 beyond [2] - 157:1, 157:5 big [1] - 125:8 bigger [1] - 88:13 bill [12] - 3:8, 21:13, 21:14, 21:19, 21:22, 23:22, 23:23, 24:2, 24:3, 24:19, 77:8, 122:20 bills [2] - 22:4, 22:5 bin [2] - 52:18, 159:24 bins [11] - 52:8, 52:11, 52:17, 69:8, 78:14, 104:1, 104:2, 104:16, 116:6, 160:20, 161:23 biological [1] - 212:2 bit [13] - 37:2, 53:15, 55:8, 96:17, 107:18, 108:23, 201:8, 203:10, 211:7, 225:7, 233:23, 234:3, 259:24 Bixby [4] - 1:21, 3:8, 3:13, 80:1 BIXBY [24] - 3:8, 3:13, 3:21, 4:4, 4:7, 7:11, 7:14, 8:5, 8:17, 8:22, 9:3, 218:24, 219:5, 237:5 breaks [1] - 22:19 brief [1] - 214:16 briefing [2] - 8:23, 255:3 briefly [1] - 192:5 bring [1] - 214:5 bringing [3] - 31:16, 248:10 brings [2] - 38:7, 197:7 broad [3] - 55:11, 55:12, 93:9 broke [2] - 4:16, 18:15 broken [1] - 99:5 brought [6] - 29:6, 132:15, 203:16, 225:23, 245:5, 245:6</p>
B			

<p>build [5] - 36:11, 36:16, 37:3, 39:9, 54:5 building [1] - 48:14 built [5] - 37:8, 45:22, 161:11, 161:17, 177:21 bulk [2] - 24:20, 86:22 Bureau [3] - 199:3, 199:7, 199:9 Business [1] - 236:12 business [61] - 14:12, 16:5, 36:3, 36:9, 36:13, 39:13, 45:8, 45:10, 45:11, 45:13, 45:18, 45:25, 50:14, 57:15, 57:18, 57:22, 58:6, 58:7, 58:12, 60:12, 67:22, 67:25, 68:4, 69:15, 76:1, 82:9, 82:12, 82:13, 85:5, 87:15, 103:16, 126:9, 126:12, 126:14, 126:17, 126:22, 176:10, 178:24, 189:2, 189:5, 189:19, 204:18, 214:8, 226:3, 232:23, 234:23, 234:24, 235:11, 236:7, 236:12, 236:14, 236:18, 236:20, 236:21, 236:23, 238:4, 238:8, 259:12 businesses [8] - 35:19, 36:4, 36:8, 87:13, 220:12, 220:13, 220:14, 236:11 businessman [1] - 60:6 button [1] - 156:4 buy [14] - 16:25, 64:23, 77:24, 107:1, 107:2, 174:3, 175:22, 175:23, 179:25, 180:1, 243:3 buyer [1] - 79:10 buyers [2] - 52:4, 158:14 buying [14] - 16:22, 70:1, 77:6, 77:7, 77:14, 101:18, 109:13, 129:13, 157:12, 159:14, 175:17, 176:7, 211:13 buys [4] - 106:24, 174:3, 177:10</p>	<p>BY [17] - 9:19, 11:17, 19:9, 70:15, 80:6, 89:15, 121:4, 121:13, 121:25, 125:16, 144:22, 149:12, 149:18, 149:22, 150:5, 150:15, 153:24, 154:10 capitalization [1] - 38:13 capitalized [1] - 45:21 capture [4] - 89:5, 89:6, 212:18, 213:10 captured [15] - 212:1, 212:9, 212:21, 213:11, 213:14, 213:15, 214:20, 214:24, 215:11, 244:6, 244:8, 247:21, 247:24, 249:5, 249:6 captures [2] - 46:3, 127:1 Carol [1] - 257:13 carried [1] - 44:1 carrying [1] - 42:24 Carson [1] - 58:1 case [91] - 6:3, 6:19, 9:24, 10:3, 11:19, 14:3, 18:4, 30:14, 34:15, 34:25, 36:15, 39:20, 47:1, 56:24, 57:19, 57:20, 57:21, 57:23, 57:25, 58:1, 59:8, 59:16, 59:17, 60:2, 60:3, 60:13, 60:14, 60:15, 60:17, 60:18, 61:3, 61:6, 61:7, 62:6, 62:18, 63:1, 63:2, 63:15, 64:11, 64:12, 68:3, 72:19, 76:9, 76:16, 79:2, 85:3, 85:9, 85:14, 94:11, 94:20, 127:23, 140:19, 140:20, 145:18, 145:20, 146:5, 157:2, 158:5, 177:14, 177:15, 178:21, 189:9, 191:4, 198:13, 200:9, 208:2, 208:5, 213:4, 215:7, 220:15, 224:1, 227:4, 227:13,</p>	<p>227:16, 231:1, 234:9, 238:14, 242:18, 250:11, 251:21, 252:23, 253:2, 256:4, 257:24, 258:11, 259:24 Case [1] - 84:13 cases [8] - 55:6, 56:8, 56:9, 56:17, 82:10, 84:12, 84:16, 189:16 cash [11] - 35:13, 35:20, 35:21, 45:15, 45:17, 45:21, 45:23, 215:3, 215:5 cast [2] - 5:6, 5:7 catalyst [89] - 12:13, 12:15, 12:17, 12:19, 12:21, 12:23, 12:25, 12:27, 12:29, 12:31, 12:33, 12:35, 12:37, 12:39, 12:41, 12:43, 12:45, 12:47, 12:49, 12:51, 12:53, 12:55, 12:57, 12:59, 12:61, 12:63, 12:65, 12:67, 12:69, 12:71, 12:73, 12:75, 12:77, 12:79, 12:81, 12:83, 12:85, 12:87, 12:89, 12:91, 12:93, 12:95, 12:97, 12:99, 12:101, 12:103, 12:105, 12:107, 12:109, 12:111, 12:113, 12:115, 12:117, 12:119, 12:121, 12:123, 12:125, 12:127, 12:129, 12:131, 12:133, 12:135, 12:137, 12:139, 12:141, 12:143, 12:145, 12:147, 12:149, 12:151, 12:153, 12:155, 12:157, 12:159, 12:161, 12:163, 12:165, 12:167, 12:169, 12:171, 12:173, 12:175, 12:177, 12:179, 12:181, 12:183, 12:185, 12:187, 12:189, 12:191, 12:193, 12:195, 12:197, 12:199, 12:201, 12:203, 12:205, 12:207, 12:209, 12:211, 12:213, 12:215, 12:217, 12:219, 12:221, 12:223, 12:225, 12:227, 12:229, 12:231, 12:233, 12:235, 12:237, 12:239, 12:241, 12:243, 12:245, 12:247, 12:249, 12:251, 12:253, 12:255, 12:257, 12:259, 12:261, 12:263, 12:265, 12:267, 12:269, 12:271, 12:273, 12:275, 12:277, 12:279, 12:281, 12:283, 12:285, 12:287, 12:289, 12:291, 12:293, 12:295, 12:297, 12:299, 12:301, 12:303, 12:305, 12:307, 12:309, 12:311, 12:313, 12:315, 12:317, 12:319, 12:321, 12:323, 12:325, 12:327, 12:329, 12:331, 12:333, 12:335, 12:337, 12:339, 12:341, 12:343, 12:345, 12:347, 12:349, 12:351, 12:353, 12:355, 12:357, 12:359, 12:361, 12:363, 12:365, 12:367, 12:369, 12:371, 12:373, 12:375, 12:377, 12:379, 12:381, 12:383, 12:385, 12:387, 12:389, 12:391, 12:393, 12:395, 12:397, 12:399, 12:401, 12:403, 12:405, 12:407, 12:409, 12:411, 12:413, 12:415, 12:417, 12:419, 12:421, 12:423, 12:425, 12:427, 12:429, 12:431, 12:433, 12:435, 12:437, 12:439, 12:441, 12:443, 12:445, 12:447, 12:449, 12:451, 12:453, 12:455, 12:457, 12:459, 12:461, 12:463, 12:465, 12:467, 12:469, 12:471, 12:473, 12:475, 12:477, 12:479, 12:481, 12:483, 12:485, 12:487, 12:489, 12:491, 12:493, 12:495, 12:497, 12:499, 12:501, 12:503, 12:505, 12:507, 12:509, 12:511, 12:513, 12:515, 12:517, 12:519, 12:521, 12:523, 12:525, 12:527, 12:529, 12:531, 12:533, 12:535, 12:537, 12:539, 12:541, 12:543, 12:545, 12:547, 12:549, 12:551, 12:553, 12:555, 12:557, 12:559, 12:561, 12:563, 12:565, 12:567, 12:569, 12:571, 12:573, 12:575, 12:577, 12:579, 12:581, 12:583, 12:585, 12:587, 12:589, 12:591, 12:593, 12:595, 12:597, 12:599, 12:601, 12:603, 12:605, 12:607, 12:609, 12:611, 12:613, 12:615, 12:617, 12:619, 12:621, 12:623, 12:625, 12:627, 12:629, 12:631, 12:633, 12:635, 12:637, 12:639, 12:641, 12:643, 12:645, 12:647, 12:649, 12:651, 12:653, 12:655, 12:657, 12:659, 12:661, 12:663, 12:665, 12:667, 12:669, 12:671, 12:673, 12:675, 12:677, 12:679, 12:681, 12:683, 12:685, 12:687, 12:689, 12:691, 12:693, 12:695, 12:697, 12:699, 12:701, 12:703, 12:705, 12:707, 12:709, 12:711, 12:713, 12:715, 12:717, 12:719, 12:721, 12:723, 12:725, 12:727, 12:729, 12:731, 12:733, 12:735, 12:737, 12:739, 12:741, 12:743, 12:745, 12:747, 12:749, 12:751, 12:753, 12:755, 12:757, 12:759, 12:761, 12:763, 12:765, 12:767, 12:769, 12:771, 12:773, 12:775, 12:777, 12:779, 12:781, 12:783, 12:785, 12:787, 12:789, 12:791, 12:793, 12:795, 12:797, 12:799, 12:801, 12:803, 12:805, 12:807, 12:809, 12:811, 12:813, 12:815, 12:817, 12:819, 12:821, 12:823, 12:825, 12:827, 12:829, 12:831, 12:833, 12:835, 12:837, 12:839, 12:841, 12:843, 12:845, 12:847, 12:849, 12:851, 12:853, 12:855, 12:857, 12:859, 12:861, 12:863, 12:865, 12:867, 12:869, 12:871, 12:873, 12:875, 12:877, 12:879, 12:881, 12:883, 12:885, 12:887, 12:889, 12:891, 12:893, 12:895, 12:897, 12:899, 12:901, 12:903, 12:905, 12:907, 12:909, 12:911, 12:913, 12:915, 12:917, 12:919, 12:921, 12:923, 12:925, 12:927, 12:929, 12:931, 12:933, 12:935, 12:937, 12:939, 12:941, 12:943, 12:945, 12:947, 12:949, 12:951, 12:953, 12:955, 12:957, 12:959, 12:961, 12:96</p>
--	---	---

239:11, 252:15, 256:6, 256:22 certainty [8] - 46:24, 50:4, 50:5, 76:6, 127:5, 127:8, 127:12, 238:7 Certified [1] - 220:3 certify [1] - 260:18 cetera [6] - 13:21, 21:22, 24:22, 24:23, 50:16 challenging [1] - 197:17 chance [39] - 33:9, 34:23, 60:10, 62:17, 62:18, 65:3, 65:7, 65:19, 67:7, 67:10, 116:8, 155:24, 159:15, 167:15, 167:17, 168:19, 169:16, 171:23, 172:18, 172:19, 173:8, 184:13, 184:14, 211:4, 211:11, 211:14, 211:15, 211:16, 213:25, 217:9, 241:4, 241:6, 241:9, 241:13, 242:7, 252:18, 257:21 chances [2] - 103:8, 168:5 chancier [1] - 257:15 change [46] - 23:5, 48:18, 51:9, 96:3, 110:4, 112:22, 125:9, 125:18, 130:10, 134:25, 135:13, 135:18, 135:20, 135:21, 136:2, 136:14, 139:23, 145:15, 145:18, 150:14, 154:23, 155:4, 162:15, 183:24, 191:25, 192:1, 192:2, 192:14, 192:15, 192:18, 193:4, 196:11, 202:11, 212:15, 213:9, 229:2, 229:4, 229:6, 233:22, 241:18, 244:4, 245:22, 245:23, 248:23, 257:21 changed [16] - 16:23, 119:22, 124:16, 125:6, 125:7, 125:17, 125:19, 129:14, 136:8, 141:4, 152:23, 153:22, 170:1, 192:2, 192:20, 194:12 changeover [6] - 171:5, 171:6, 171:11, 175:21, 175:22, 243:19 changeovers [2] - 170:14, 170:17 changes [18] - 6:6, 36:6, 36:11, 42:3, 44:2, 48:3, 48:23, 49:2, 78:3, 86:1, 95:22, 129:11, 137:11, 202:11, 215:12, 218:5, 229:8 changing [4] - 124:23, 124:25, 233:21, 234:1 chapter [1] - 83:15 chapters [2] - 56:18, 83:10 characterization [1] - 242:21 characterized [2] - 242:11 characterizing [1] - 208:11 characters [1] - 158:25 charge [2] - 52:18, 199:5 charges [2] - 27:10, 27:25 Charles [3] - 2:2, 197:5, 198:8 chart [2] - 31:12, 186:21 cheap [1] - 104:18 cheaper [1] - 116:6 check [6] - 17:4, 81:21, 117:20, 122:16, 166:5, 190:20 checks [1] - 196:8 Chen [1] - 38:4 CHEP [15] - 69:7, 69:13, 77:19, 77:23, 78:13, 103:16, 103:21, 103:25, 104:13, 172:6, 172:7, 172:23, 173:10, 174:5 CHEP's [1] - 104:16 Chicago [1] - 207:17 Chief [1] - 1:16 chief [3] - 199:4, 199:7, 199:13 children [1] - 207:16 choice [11] - 110:11, 110:16, 166:3, 205:3, 206:15, 206:18, 216:7, 231:13, 252:3, 256:6, 256:7 choices [1] - 216:5 choose [7] - 16:20, 51:20, 111:6, 206:1, 206:2, 231:11, 251:12 chooses [2] - 167:12, 252:5 choosing [5] - 15:24, 16:12, 207:21, 231:10, 231:19 chose [10] - 16:1, 68:14, 74:13, 112:19, 145:12, 145:14, 155:23, 158:6, 217:10, 228:1 chosen [6] - 205:2, 228:21, 233:24, 241:17, 243:19, 252:4 circular [1] - 238:16 cite [1] - 216:17 citing [1] - 253:18 citizens [1] - 35:15 CIVIL [1] - 1:4 claim [1] - 14:12 claims [2] - 14:13, 82:13 clamps [1] - 21:22 class [1] - 254:11 Classification [1] - 41:6 classification [1] - 41:13 cleaned [2] - 52:17, 160:25 clear [13] - 32:19, 33:5, 68:7, 121:8, 180:23, 190:24, 197:20, 207:1, 228:24, 239:22, 242:18, 250:14, 250:17 clearer [1] - 225:7 CLERK [4] - 9:8, 9:13, 198:2, 198:7 client [3] - 92:12, 127:18, 165:24 Clifford [1] - 84:13 climb [1] - 183:9 close [12] - 3:23, 28:4, 37:20, 66:23, 72:7, 123:3, 124:5, 124:15, 184:2, 244:21, 253:13 253:22 closer [1] - 233:2 closest [2] - 41:13, 87:16 co [2] - 82:17, 83:6 co-author [1] - 83:6 co-authored [1] - 82:17 code [4] - 14:5, 41:6, 86:23, 87:5 coefficient [1] - 216:22 collect [2] - 22:4, 22:8 collects [1] - 35:16 college [2] - 80:25, 81:2 column [5] - 30:6, 106:2, 123:11, 123:13, 123:15 columns [4] - 29:15, 62:3, 123:6, 123:14 combination [1] - 40:9 combine [1] - 36:25 combined [4] - 184:22, 184:25, 255:11, 255:13 comfort [1] - 234:4 comfortable [1] - 5:9 coming [13] - 14:2, 14:16, 35:6, 66:13, 69:23, 78:18, 103:8, 103:12, 191:15, 208:16, 222:20, 225:1, 246:24 comment [1] - 216:17 commenting [1] - 241:2 commercial [3] - 35:19, 83:2, 237:25 Commercial [1] - 82:20 commitment [1] - 190:22 common [8] - 60:21, 207:10, 207:12, 207:13, 216:13, 218:5, 218:11, 247:2 companies [10] - 20:19, 37:16, 38:21, 39:11, 82:9, 87:4, 87:6, 100:7, 245:21, 245:22 Company [1] - 14:21 company [27] - 15:17, 20:11, 20:14, 21:6, 21:7, 28:21, 36:20, 38:11, 39:17, 40:24, 42:1, 42:14, 42:18 69:8, 106:25, 149:25, 167:9, 174:4, 183:3, 204:22, 215:10, 220:16, 220:19, 227:14, 232:16, 236:6 company's [8] - 15:20, 29:21, 29:24, 39:22, 41:7, 141:13, 141:16, 141:20 comparable [4] - 15:17, 15:19, 16:5, 167:21 comparables [1] - 41:11 compare [1] - 15:16 compared [1] - 87:5 compares [1] - 164:9 comparison [2] - 216:23, 227:25 comparisons [1] - 234:8 competition [10] - 13:11, 36:4, 77:15, 78:1, 212:10, 212:18, 232:13, 232:16, 232:19, 243:5 competitive [2] - 78:4, 116:5 competitor [5] - 103:21, 104:12, 104:13, 116:4, 232:8 competitors [9] - 51:10, 69:10, 77:19, 103:23, 104:1, 115:20, 116:14, 172:15, 230:9 complaints [1] - 109:12 complete [1] - 256:3 completed [1] - 254:7 completely [3] - 55:16, 221:8, 246:2 complicated [2] - 203:20, 211:8 compliment [1] - 242:16 component [1] - 210:18 composite [2] - 99:6, 99:15 compound [1] - 235:4 comptroller [1] - 56:3 computation [1] - 54:21 computations [1] - 60:4 compute [3] - 9:25,
--

10:7, 15:9 computed [1] - 22:14 computer [8] - 1:25, 53:23, 155:15, 189:13, 201:17, 202:7, 203:8, 219:25 computers [1] - 60:5 computing [1] - 18:7 concern [11] - 13:5, 233:11, 242:22, 244:1, 244:3, 252:3, 259:3, 259:6, 259:7, 259:15 concerned [2] - 7:20, 209:2 concerns [1] - 229:11 conclude [2] - 254:24, 259:14 concluded [1] - 207:7 concludes [1] - 259:14 conclusion [10] - 49:15, 49:19, 76:18, 79:14, 79:17, 79:18, 128:6, 208:3, 222:18, 255:2 conclusions [3] - 14:2, 95:21, 200:13 conditions [2] - 22:15, 22:16 conducting [1] - 209:23 conducts [1] - 252:6 conference [5] - 3:19, 4:9, 7:15, 10:21, 148:14 confident [2] - 24:8, 39:9 confirm [1] - 143:10 confirmation [1] - 133:3 confirmed [3] - 53:1, 98:13, 165:25 conflicted [1] - 235:11 confused [2] - 29:10, 124:8 confusing [1] - 5:22 confusion [3] - 62:2, 112:2, 180:24 Congress [2] - 77:7, 199:23 conjunction [1] - 62:8 connect [1] - 187:11 consequential [1] - 65:8 consider [16] - 17:21, 56:24, 57:5, 62:10, 77:15, 91:6, 103:2, 107:25, 108:2, 159:4, 191:16,	219:8, 230:6, 233:15, 241:1, 243:9 considerably [1] - 13:9 consideration [3] - 78:17, 172:17, 223:2 considered [8] - 15:23, 57:4, 103:5, 108:3, 158:22, 227:22, 232:11, 246:6 considering [2] - 8:17, 104:13 consistent [1] - 132:6 consistently [1] - 39:19 constant [6] - 33:21, 74:4, 98:8, 105:7, 248:18, 249:2 constantly [1] - 22:9 consult [4] - 14:1, 134:1, 134:3, 149:2 consultant [1] - 189:6 consultation [1] - 73:2 consulting [1] - 134:5 contain [3] - 95:6, 95:8, 120:15 contained [3] - 95:8, 178:1, 178:4 container [11] - 19:17, 24:20, 63:16, 73:6, 73:7, 73:8, 79:7, 86:22, 160:17, 169:13, 172:6 containers [25] - 12:15, 17:17, 17:24, 23:14, 23:23, 23:24, 23:25, 48:9, 57:10, 77:21, 79:4, 79:5, 79:11, 79:20, 159:19, 159:22, 160:13, 191:6, 191:9, 232:13, 236:22, 237:1, 243:7, 247:10, 247:12 contains [2] - 160:17, 167:6 contingencies [4] - 50:25, 51:1, 51:5, 51:16 contingency [2] - 51:11, 114:4 continue [12] - 33:7, 33:9, 65:21, 108:7, 108:11, 171:16, 172:14, 173:14, 173:21, 174:6, 190:11, 190:14 continued [3] - 17:9,	26:7, 47:10 Continued [1] - 194:25 continues [2] - 173:5, 174:3 continuing [3] - 176:24, 176:25, 247:19 continuous [5] - 26:6, 163:21, 164:1, 165:15, 208:6 considering [2] - 8:17, 104:13 consistent [1] - 132:6 consistently [1] - 39:19 constant [6] - 33:21, 74:4, 98:8, 105:7, 248:18, 249:2 constantly [1] - 22:9 consult [4] - 14:1, 134:1, 134:3, 149:2 consultant [1] - 189:6 consultation [1] - 73:2 consulting [1] - 134:5 contain [3] - 95:6, 95:8, 120:15 contained [3] - 95:8, 178:1, 178:4 container [11] - 19:17, 24:20, 63:16, 73:6, 73:7, 73:8, 79:7, 86:22, 160:17, 169:13, 172:6 containers [25] - 12:15, 17:17, 17:24, 23:14, 23:23, 23:24, 23:25, 48:9, 57:10, 77:21, 79:4, 79:5, 79:11, 79:20, 159:19, 159:22, 160:13, 191:6, 191:9, 232:13, 236:22, 237:1, 243:7, 247:10, 247:12 contains [2] - 160:17, 167:6 contingencies [4] - 50:25, 51:1, 51:5, 51:16 contingency [2] - 51:11, 114:4 continue [12] - 33:7, 33:9, 65:21, 108:7, 108:11, 171:16, 172:14, 173:14, 173:21, 174:6, 190:11, 190:14 continued [3] - 17:9,	94:14, 94:20, 95:1, 95:17, 95:18, 95:21, 96:1, 96:20, 97:3, 97:13, 98:11, 99:17, 99:21, 99:25, 100:14, 101:12, 101:15, 101:23, 101:24, 102:14, 104:6, 104:8, 104:9, 104:19, 105:12, 105:17, 106:6, 106:8, 106:9, 106:13, 107:7, 107:21, 110:24, 111:1, 111:15, 112:6, 112:7, 112:10, 112:15, 114:11, 114:12, 115:11, 116:2, 117:14, 117:18, 117:21, 117:24, 118:23, 121:11, 122:2, 123:4, 123:18, 123:21, 123:24, 124:6, 124:20, 126:9, 127:15, 127:19, 127:25, 128:6, 128:14, 128:17, 128:20, 129:1, 129:6, 129:21, 130:15, 130:25, 131:7, 131:17, 132:4, 132:8, 132:10, 132:11, 132:14, 134:14, 135:4, 135:8, 135:11, 135:21, 135:24, 136:4, 136:9, 136:10, 136:11, 136:15, 136:18, 136:22, 137:18, 137:21, 139:22, 140:19, 141:1, 141:6, 142:25, 144:25, 145:3, 145:4, 146:6, 146:9, 146:22, 147:23, 149:23, 150:7, 150:21, 151:9, 151:13, 151:16, 151:18, 152:19, 155:2, 155:5, 155:21, 156:1, 156:18, 156:21, 157:18, 158:3, 158:6, 158:10, 159:7, 159:25, 160:11, 160:20, 160:23, 161:25, 162:9,
--	---	--	--

25:24, 25:25, 31:13, 36:18, 36:22, 36:23, 36:25, 40:11, 40:16, 40:18, 40:22, 42:23, 43:2, 43:5, 43:6, 44:21, 44:24, 48:20, 52:20, 59:2, 69:14, 72:14, 72:20, 73:2, 73:10, 73:15, 73:16, 76:2, 86:3, 86:24, 90:8, 90:12, 90:16, 90:17, 94:8, 116:14, 118:8, 122:8, 134:25, 135:18, 141:4, 141:16, 149:14, 149:16, 149:22, 150:5, 150:14, 153:24, 154:9, 159:6, 159:13, 159:23, 160:16, 161:4, 161:7, 161:9, 161:18, 161:19, 192:15, 192:18, 209:18, 209:19, 209:20, 214:17, 215:9, 227:21, 232:22, 239:25	cougar [19] - 2:12, 88:7, 88:8, 88:11, 88:16, 88:17, 88:25, 125:25, 156:17, 159:5, 160:2, 160:5, 160:8, 161:5, 161:8, 161:15, 161:22, 194:12 Cougars [31] - 61:5, 88:5, 90:24, 91:13, 91:18, 91:22, 91:24, 97:12, 100:19, 102:25, 103:3, 104:18, 105:16, 105:23, 114:6, 114:9, 114:23, 115:17, 116:1, 116:19, 123:17, 123:20, 123:22, 171:8, 172:8, 172:14, 175:14, 178:2, 178:4, 178:22, 195:16	counsel [8] - 3:2, 3:6, 133:1, 150:10, 245:5, 259:20, 259:21, 260:8 counsel) [1] - 128:11	55:22, 59:22, 127:23, 223:4, 235:11, 248:25, 253:19, 260:10 courses [2] - 80:25, 81:2 court [5] - 3:1, 56:17, 85:6, 85:16, 257:15 COURT [135] - 1:1, 3:2, 3:5, 3:15, 4:3, 4:6, 4:18, 4:25, 5:6, 5:12, 5:18, 6:1, 6:7, 6:11, 6:14, 6:17, 6:20, 6:24, 7:2, 7:9, 8:4, 9:1, 9:4, 9:16, 10:25, 11:5, 11:15, 19:7, 29:9, 29:13, 70:6, 70:13, 80:1, 80:4, 89:13, 105:19, 105:21, 119:19, 119:24, 120:4, 120:12, 120:15, 120:18, 120:24, 121:2, 121:6, 121:12, 121:24, 125:15, 142:3, 142:8, 142:12, 143:13, 143:16, 143:18, 143:21, 143:25, 144:4, 144:9, 144:11, 144:15, 144:21, 147:6, 147:12, 147:14, 147:20, 147:24, 148:4, 148:10, 148:17, 148:20, 148:24, 149:2, 149:6, 149:10, 152:6, 152:14, 188:1, 188:5, 188:7, 188:11, 188:13, 188:16, 194:23, 196:14, 196:16, 196:19, 196:23, 197:1, 197:9, 197:19, 197:21, 198:1, 199:17, 200:22, 200:25, 218:2, 218:13, 218:16, 218:21, 219:4, 219:7, 219:11, 219:14, 221:24, 222:2, 222:7, 223:6, 223:12, 223:22, 224:5, 224:12, 224:19, 225:1, 225:11, 226:10, 254:4, 254:9, 254:15, 254:18,	255:5, 255:9, 255:13, 255:20, 256:7, 256:10, 256:13, 256:19, 257:2, 257:18, 257:22, 258:4, 258:7, 260:6, 260:8 Court [22] - 1:17, 1:23, 3:20, 4:9, 4:21, 5:21, 8:1, 8:23, 9:21, 10:13, 10:22, 50:9, 86:21, 146:6, 197:1, 198:11, 201:6, 254:17, 254:21, 260:17, 260:18, 260:23 Courthouse [1] - 1:17 cover [2] - 150:9, 219:1 covered [4] - 203:25, 204:1, 243:9, 245:4 covers [1] - 65:20 Cowan [11] - 2:2, 84:2, 148:13, 197:6, 198:8, 198:11, 219:23, 226:14, 235:25, 250:5 COWAN [1] - 198:8 Cowan's [2] - 218:19, 259:16 coziness [1] - 69:13 CPA [2] - 82:12, 189:5 create [1] - 213:3 credentialed [2] - 83:4, 83:24 credentials [1] - 80:11 credible [4] - 244:10, 244:25, 245:2, 249:12 CRI [19] - 10:16, 31:20, 33:23, 85:24, 86:1, 90:23, 97:24, 114:6, 133:18, 147:5, 185:8, 185:10, 185:21, 186:7, 195:13, 195:20, 196:3, 251:6, 251:18 CRI's [1] - 115:20 CRI/Criterion [17] - 73:6, 74:1, 96:19, 99:24, 107:21, 108:14, 108:18, 110:8, 110:17, 112:13, 127:22, 127:25, 130:15, 144:18, 149:21, 195:25, 251:20 crisis [2] - 199:12, 199:19	Criterion [83] - 10:16, 12:7, 12:12, 13:19, 14:18, 14:19, 14:21, 14:25, 15:4, 16:3, 16:14, 16:15, 16:17, 16:21, 17:9, 17:25, 18:10, 19:15, 19:19, 23:22, 24:1, 25:3, 27:1, 27:3, 29:18, 45:5, 45:6, 47:11, 47:24, 50:11, 50:17, 50:23, 59:4, 66:24, 67:3, 69:2, 73:14, 73:18, 73:23, 74:11, 76:12, 76:19, 76:21, 77:6, 77:14, 77:22, 78:16, 78:20, 79:1, 85:24, 86:1, 88:9, 98:9, 107:24, 108:21, 113:20, 114:24, 115:2, 116:4, 116:12, 129:3, 129:10, 149:23, 151:3, 157:12, 167:22, 169:12, 169:17, 185:2, 187:18, 186:7, 187:21, 190:10, 190:15, 190:25, 191:1, 191:10, 191:12, 192:11, 222:25, 223:5, 223:26, 224:1, 224:26, 225:1, 225:26, 226:1, 226:26, 227:1, 227:26, 228:1, 228:26, 229:1, 229:26, 230:1, 230:26, 231:1, 231:26, 232:1, 232:26, 233:1, 233:26, 234:1, 234:26, 235:1, 235:26, 236:1, 236:26, 237:1, 237:26, 238:1, 238:26, 239:1, 239:26, 240:1, 240:26, 241:1, 241:26, 242:1, 242:26, 243:1, 243:26, 244:1, 244:26, 245:1, 245:26, 246:1, 246:26, 247:1, 247:26, 248:1, 248:26, 249:1, 249:26, 250:1, 250:26, 251:1, 251:26, 252:1, 252:26, 253:1, 253:26, 254:1, 254:26, 255:1, 255:26, 256:1, 256:26, 257:1, 257:26, 258:1, 258:26, 259:1, 259:26, 260:1, 260:26, 261:1, 261:26, 262:1, 262:26, 263:1, 263:26, 264:1, 264:26, 265:1, 265:26, 266:1, 266:26, 267:1, 267:26, 268:1, 268:26, 269:1, 269:26, 270:1, 270:26, 271:1, 271:26, 272:1, 272:26, 273:1, 273:26, 274:1, 274:26, 275:1, 275:26, 276:1, 276:26, 277:1, 277:26, 278:1, 278:26, 279:1, 279:26, 280:1, 280:26, 281:1, 281:26, 282:1, 282:26, 283:1, 283:26, 284:1, 284:26, 285:1, 285:26, 286:1, 286:26, 287:1, 287:26, 288:1, 288:26, 289:1, 289:26, 290:1, 290:26, 291:1, 291:26, 292:1, 292:26, 293:1, 293:26, 294:1, 294:26, 295:1, 295:26, 296:1, 296:26, 297:1, 297:26, 298:1, 298:26, 299:1, 299:26, 300:1, 300:26, 301:1, 301:26, 302:1, 302:26, 303:1, 303:26, 304:1, 304:26, 305:1, 305:26, 306:1, 306:26, 307:1, 307:26, 308:1, 308:26, 309:1, 309:26, 310:1, 310:26, 311:1, 311:26, 312:1, 312:26, 313:1, 313:26, 314:1, 314:26, 315:1, 315:26, 316:1, 316:26, 317:1, 317:26, 318:1, 318:26, 319:1, 319:26, 320:1, 320:26, 321:1, 321:26, 322:1, 322:26, 323:1, 323:26, 324:1, 324:26, 325:1, 325:26, 326:1, 326:26, 327:1, 327:26, 328:1, 328:26, 329:1, 329:26, 330:1, 330:26, 331:1, 331:26, 332:1, 332:26, 333:1, 333:26, 334:1, 334:26, 335:1, 335:26, 336:1, 336:26, 337:1, 337:26, 338:1, 338:26, 339:1, 339:26, 340:1, 340:26, 341:1, 341:26, 342:1, 342:26, 343:1, 343:26, 344:1, 344:26, 345:1, 345:26, 346:1, 346:26, 347:1, 347:26, 348:1, 348:26, 349:1, 349:26, 350:1, 350:26, 351:1, 351:26, 352:1, 352:26, 353:1, 353:26, 354:1, 354:26, 355:1, 355:26, 356:1, 356:26, 357:1, 357:26, 358:1, 358:26, 359:1, 359:26, 360:1, 360:26, 361:1, 361:26, 362:1, 362:26, 363:1, 363:26, 364:1, 364:26, 365:1, 365:26, 366:1, 366:26, 367:1, 367:26, 368:1, 368:26, 369:1, 369:26, 370:1, 370:26, 371:1, 371:26, 372:1, 372:26, 373:1, 373:26, 374:1, 374:26, 375:1, 375:26, 376:1, 376:26, 377:1, 377:26, 378:1, 378:26, 379:1, 379:26, 380:1, 380:26, 381:1, 381:26, 382:1, 382:26, 383:1, 383:26, 384:1, 384:26, 385:1, 385:26, 386:1, 386:26, 387:1, 387:26, 388:1, 388:26, 389:1, 389:26, 390:1, 390:26, 391:1, 391:26, 392:1, 392:26, 393:1, 393:26, 394:1, 394:26, 395:1, 395:26, 396:1, 396:26, 397:1, 397:26, 398:1, 398:26, 399:1, 399:26, 400:1, 400:26, 401:1, 401:26, 402:1, 402:26, 403:1, 403:26, 404:1, 404:26, 405:1, 405:26, 406:1, 406:26, 407:1, 407:26, 408:1, 408:26, 409:1, 409:26, 410:1, 410:26, 411:1, 411:26, 412:1, 412:26, 413:1, 413:26, 414:1, 414:26, 415:1, 415:26, 416:1, 416:26, 417:1, 417:26, 418:1, 418:26, 419:1, 419:26, 420:1, 420:26, 421:1, 421:26, 422:1, 422:26, 423:1, 423:26, 424:1, 424:26, 425:1, 425:26, 426:1, 426:26, 427:1, 427:26, 428:1, 428:26, 42
---	--	---	--	---	--

cumulation [1] - 253:17	117:3, 126:13, 127:5, 127:22, 128:4, 130:14, 131:16, 133:18, 145:9, 151:22, 157:22, 191:20, 224:8, 234:15, 234:17, 234:22, 238:1, 238:7	172:20 death [1] - 34:25 debt [11] - 36:20, 36:24, 39:20, 40:21, 42:16, 42:20, 42:23, 42:24, 43:2, 43:4, 43:5 December [10] - 26:23, 27:6, 27:7, 27:10, 27:12, 27:13, 29:16, 30:18, 34:18	249:23, 250:16 defense [3] - 7:18, 119:17, 245:6 defer [1] - 255:3 define [7] - 10:2, 111:4, 127:8, 158:23, 174:1, 208:13, 220:9 definition [1] - 93:9 degree [10] - 49:25, 50:3, 50:5, 80:13, 80:16, 80:18, 198:19, 238:7, 240:24, 242:16	146:25, 147:2, 153:3, 153:22, 154:16, 177:18, 189:24, 189:25, 190:2, 190:3, 190:7 depositions [2] - 7:8, 189:24
curves [1] - 212:6	Damages [3] - 2:4, 2:9, 82:20	December's [1] - 31:17 decide [6] - 19:13, 33:5, 113:2, 143:13, 205:23, 207:2	definition [1] - 93:9 degree [10] - 49:25, 50:3, 50:5, 80:13, 80:16, 80:18, 198:19, 238:7, 240:24, 242:16 delayed [1] - 98:3	derive [1] - 198:20 derived [2] - 10:15, 205:12
custom [1] - 172:10	data [49] - 35:18, 41:19, 56:25, 59:12, 62:14, 84:17, 84:19, 113:25, 114:1, 114:5, 115:12, 156:10, 156:15, 156:20, 157:18, 157:25, 158:2, 168:1, 168:2, 189:8, 205:10, 205:17, 205:19, 205:20, 205:24, 205:25, 206:15, 207:3, 207:4, 207:5, 207:6, 207:8, 207:21, 226:18, 226:20, 226:22, 226:23, 227:14, 228:1, 233:14, 234:11, 234:14, 235:13, 238:13, 238:17, 239:5, 239:25	decided [12] - 32:25, 77:22, 78:21, 112:16, 112:18, 113:15, 113:16, 132:21, 132:23, 132:24, 165:17, 206:21	delivers [1] - 50:12 demography [1] - 199:10 demonstrate [1] - 161:20 demonstrated [1] - 183:13 demonstrates [1] - 253:3	described [5] - 62:4, 74:10, 74:22, 167:17, 211:9 describes [1] - 206:19
customer [22] - 10:16, 14:24, 15:1, 15:2, 16:21, 18:9, 45:4, 48:21, 50:17, 109:2, 126:10, 171:24, 172:19, 172:22, 172:23, 172:24, 174:21, 177:20, 190:16, 191:11, 195:13	deciding [1] - 240:13 decision [10] - 39:2, 59:23, 115:15, 115:16, 115:18, 134:6, 137:12, 159:10, 159:18, 169:22	decisions [1] - 56:5 decline [1] - 26:7 declining [4] - 214:23, 231:17, 232:1, 247:23	demonstrative [1] - 144:5 Dennis [3] - 1:23, 260:17, 260:22 denominator [1] - 41:20	describing [1] - 243:11 description [1] - 212:14
customer's [1] - 65:5	deciding [1] - 240:13 decision [10] - 39:2, 59:23, 115:15, 115:16, 115:18, 134:6, 137:12, 159:10, 159:18, 169:22	decreasing [2] - 72:6, 176:23	denominators [1] - 41:22 Department [1] - 199:8	Description [3] - 2:4, 2:15, 2:18 design [3] - 79:19, 199:4, 210:5
customers [24] - 10:11, 50:18, 52:5, 52:7, 52:25, 53:4, 53:7, 59:1, 64:21, 65:20, 65:23, 91:23, 92:4, 159:3, 166:12, 171:25, 174:23, 191:6, 195:7, 195:9, 195:12, 195:17	decided [12] - 32:25, 77:22, 78:21, 112:16, 112:18, 113:15, 113:16, 132:21, 132:23, 132:24, 165:17, 206:21	decrease [2] - 149:16, 150:7	denominator [1] - 41:20 denominators [1] - 41:22	designated [5] - 94:13, 145:17, 146:21, 189:17, 250:18
cut [3] - 23:16, 48:7, 259:23	Data [2] - 2:5, 2:6	decreased [2] - 26:16, 28:19	Department [1] - 199:8	designation [61] - 6:3, 6:4, 6:5, 6:10, 48:11, 94:11, 95:4, 95:20, 95:23, 96:4, 96:5, 96:7, 97:1, 100:12, 103:21, 114:25, 119:17, 119:20, 120:8, 120:9, 120:12, 120:23, 121:3, 121:9, 121:15, 128:12, 129:15, 129:17, 129:23, 130:13, 130:24, 130:25, 131:1, 131:12, 131:14, 131:22, 137:15, 137:17, 140:9, 141:24, 146:8, 147:1, 150:25, 151:7, 152:1, 152:3, 152:4, 152:8, 152:12, 163:14, 171:15, 173:20, 174:9, 185:5, 195:3, 197:14, 236:1, 236:2, 250:10
cutoff [3] - 127:1, 228:18, 231:20	database [3] - 14:4, 41:4, 141:10	decreasing [2] - 72:6, 176:23	deposited [1] - 137:20	Designation/Ex [1] - 2:15
CV [2] - 2:14, 10:20	databases [2] - 14:1, 14:2	defective [1] - 77:1	deposition [67] - 84:7, 84:10, 86:11, 88:21, 88:23, 89:10, 91:5, 91:12, 92:24, 93:10, 97:21, 98:1, 101:14, 109:16, 109:21, 110:4, 110:22, 113:4, 113:5, 113:6	designations [3] -
D				
daily [1] - 81:7	Dated [1] - 260:21	deduct [2] - 32:25, 33:6	deems [1] - 118:15	199:8
damage [16] - 16:9, 46:6, 46:11, 49:11, 56:14, 56:20, 74:13, 75:5, 79:15, 85:11, 109:10, 189:4, 189:5, 189:17, 189:18, 250:25	Daubert [6] - 225:4, 226:8, 254:25, 258:11, 259:1, 260:3	deeper [1] - 225:24	deeper [1] - 225:24	199:8
damages [52] - 14:19, 26:16, 33:3, 43:17, 44:16, 45:10, 49:9, 49:12, 49:20, 50:1, 50:7, 50:20, 53:16, 56:8, 59:5, 72:11, 74:11, 75:7, 75:20, 76:6, 82:13, 83:2, 83:15, 83:18, 85:4, 85:6, 85:10, 85:13, 92:11, 96:23, 98:14, 98:23, 99:3, 104:4,	Daubert's [1] - 259:6	Deepwater [1] - 176:3	default [3] - 16:8, 62:24, 257:6	199:8
dead [2] - 212:2, 212:5	David [2] - 47:20, 250:19	defective [1] - 77:1	defective [1] - 77:1	199:8
deadlines [1] - 146:6	Davis [1] - 97:9	defendant [7] - 3:12, 3:14, 97:5, 140:6, 197:17, 248:11, 257:24	defendant [7] - 3:12, 3:14, 97:5, 140:6, 197:17, 248:11, 257:24	199:8
deal [4] - 52:1, 63:17, 71:15, 178:8	day's [1] - 118:17	defendant's [2] - 4:12, 76:14	defendant's [2] - 4:12, 76:14	199:8
dealing [5] - 170:4, 184:1, 202:10, 231:3, 258:16	days [2] - 3:23, 93:22	Defendants [2] - 1:10, 1:21	Defendants [2] - 1:10, 1:21	199:8
deals [2] - 105:22,	de [1] - 221:22	defendants [8] - 5:21, 8:6, 97:5, 248:4, 248:8, 249:17,	defendants [8] - 5:21, 8:6, 97:5, 248:4, 248:8, 249:17,	199:8

5:20, 189:19, 191:16	135:6, 135:10,	251:14, 252:1,	discourse [1] - 237:11	231:12, 231:14,
designed [3] - 91:13,	135:20, 136:1,	259:12, 259:13	discover [1] - 43:19	232:6, 239:12,
91:18, 91:19	137:4, 138:15,	differential [1] -	discovered [1] -	239:14, 245:9,
designing [2] - 90:24,	138:19, 140:2,	161:10	152:24	251:12, 251:14,
199:15	145:11, 191:2,	differently [1] - 14:8	discrete [3] - 55:7,	251:17, 251:25,
designs [1] - 92:4	192:11, 216:18,	difficult [2] - 36:10,	60:11, 62:20	252:6
despite [3] - 173:5,	216:20, 240:9,	69:18	discuss [3] - 13:2,	distributions [15] -
207:11, 236:25	240:10, 240:20	diminish [1] - 239:5	34:9, 197:25	55:1, 55:5, 55:7,
destroyed [12] - 45:5,	devastating [1] -	diminished [1] -	discussed [7] - 3:18,	59:11, 59:13, 62:11,
45:9, 45:11, 45:12,	238:1	172:16	56:21, 74:17, 84:12,	208:6, 208:7,
45:13, 45:18, 45:25,	develop [8] - 14:6,	8:15, 26:1, 32:21,	100:23, 148:13,	209:15, 216:6,
114:13, 126:21,	21:8, 36:17, 36:22,	72:15, 72:20, 86:20,	203:24	218:11, 229:3,
254:12	40:15, 40:21,	87:22, 96:18,	discussing [1] - 196:4	251:5, 252:3, 252:4
destruction [4] - 18:9,	189:13, 191:22	117:24, 126:7,	discussion [10] -	DISTRICT [2] - 1:1, 1:2
126:9, 126:10,	developed [3] - 53:20,	148:14, 166:22,	59:15, 85:22,	District [4] - 1:16,
126:11	65:25, 233:2	201:10, 254:7,	191:14, 203:15,	1:17, 260:18
detail [2] - 200:19,	development [2] -	255:1, 255:15,	204:1, 204:15,	divergent [1] - 215:13
224:3	16:24, 190:18	255:16	214:15, 244:3,	divide [4] - 18:22,
detailed [2] - 20:21,	dictated [2] - 167:10,	Direct [1] - 2:1	245:2, 246:1	21:3, 66:5, 119:9
21:8	167:11	DIRECT [2] - 9:18,	Discussion [1] -	dividing [2] - 41:24,
details [1] - 53:13	die [2] - 212:2, 212:4	198:9	128:11	239:20
determination [5] -	differ [1] - 233:23	direct-examination	discussions [4] -	division [1] - 14:21
47:21, 64:22,	difference [24] -	[1] - 166:22	12:5, 40:6, 58:21,	divisions [1] - 176:11
206:24, 207:7,	23:24, 34:4, 88:13,	direction [1] - 107:15	204:17	Docket [1] - 1:5
214:17	90:18, 90:19, 90:21,	directly [2] - 203:6,	disposal [3] - 160:10,	doctor [4] - 259:2,
determinations [1] -	91:21, 106:15,	223:15	161:8, 161:9	259:3, 259:25, 260:1
207:13	122:24, 122:25,	director [1] - 199:25	dispose [2] - 160:16,	Doctorate [1] - 198:15
determine [34] - 15:3,	123:1, 123:5,	dirtier [1] - 102:16	161:14	Document [6] - 2:19,
16:7, 21:10, 23:4,	123:10, 123:14,	dirty [1] - 176:25	disposed [1] - 160:5	2:19, 2:20, 2:20,
26:19, 26:21, 36:14,	133:11, 141:6,	disagree [7] - 39:4,	disposing [3] -	2:21, 2:21
36:23, 50:20, 53:16,	154:20, 184:5,	224:16, 229:7,	160:23, 161:1, 161:5	document [6] - 94:13,
73:23, 97:5, 115:7,	251:15, 258:17,	229:19, 238:20,	dispute [2] - 143:14,	136:1, 153:14,
118:1, 122:8,	258:18, 258:24,	239:19, 242:25	221:3	177:4, 179:6
122:11, 122:22,	259:2	disappear [2] - 32:17,	disputed [1] - 221:9	documentation [3] -
157:18, 157:25,	differences [5] -	33:9	disputing [2] - 221:6,	19:25, 78:23, 205:7
158:2, 167:13,	27:22, 83:22, 88:16,	disc [3] - 258:20,	237:21	documents [5] - 5:4,
168:11, 177:6,	88:24, 90:15	258:23	disrespect [1] -	23:20, 27:25, 122:3,
178:16, 178:18,	different [57] - 10:10,	Discharge [1] - 2:6	206:13	146:17
188:22, 200:16,	17:10, 17:12, 19:6,	discount [43] - 14:7,	dissatisfied [1] -	dollar [4] - 29:20,
206:20, 217:8,	30:10, 31:25, 41:22,	34:15, 34:20, 34:21,	47:12	32:23, 183:6, 183:15
238:17, 241:9,	55:2, 62:1, 73:5,	35:1, 35:23, 35:24,	distance [1] - 118:25	dollars [6] - 19:16,
241:14, 241:21,	73:15, 73:17, 87:6,	36:12, 36:15, 36:16,	distributed [3] -	39:23, 43:12, 67:15,
244:25	91:22, 92:12, 97:4,	36:22, 37:9, 37:17,	206:21, 206:22,	75:16, 116:1
determined [5] -	99:8, 111:8, 112:4,	37:20, 38:1, 39:13,	207:8	done [39] - 7:12,
64:25, 103:3,	115:6, 127:24,	39:22, 40:17, 44:8,	distribution [54] -	28:19, 34:11, 40:22,
114:18, 158:13,	128:4, 130:11,	44:13, 44:14, 44:15,	55:3, 55:4, 55:13,	49:7, 49:8, 54:22,
167:2	141:12, 141:15,	45:1, 45:3, 45:20,	59:19, 59:20, 59:25,	64:3, 65:10, 65:23,
determines [1] - 252:7	170:24, 176:11,	46:16, 46:19, 46:21,	60:1, 60:8, 60:12,	66:6, 81:23, 96:2,
determining [3] -	191:14, 191:18,	47:1, 49:22, 74:6,	62:11, 62:15, 62:20,	114:17, 115:10,
11:19, 23:2, 58:14	191:24, 198:18,	74:7, 74:8, 75:21,	62:25, 63:19, 64:13,	116:9, 140:23,
deterministic [36] -	200:17, 202:16,	75:22, 76:3, 76:4,	64:15, 66:3, 66:10,	143:6, 148:21,
18:6, 50:23, 51:21,	204:12, 211:6,	128:21, 149:18,	66:12, 66:13, 72:4,	148:25, 151:2,
110:24, 110:25,	215:14, 215:15,	193:5, 193:6, 228:4,	72:25, 73:4, 73:11,	169:9, 170:17,
111:6, 111:10,	215:16, 215:17,	228:5	89:7, 178:9, 203:5,	170:18, 202:21,
111:12, 111:22,	216:5, 216:8,	Discount [1] - 2:8	206:18, 206:22,	203:10, 204:8,
112:1, 112:3, 112:9,	221:19, 226:1,	discounted [1] - 34:13	207:22, 208:1,	204:10, 210:18,
113:3, 113:13,	227:1, 232:17,	discounting [4] -	208:2, 208:12,	219:17, 219:19,
128:13, 131:5,	232:18, 240:24,	46:20, 46:23,	208:13, 208:25,	220:20, 225:21,
131:19, 132:4,	240:25, 242:7,	215:17, 228:7	228:16, 228:22,	231:13, 234:4,
132:7, 134:25,	251:5, 251:10,		231:10, 231:11,	243:6, 244:21,

<p>249:14, 250:8 dormant [1] - 53:21 dots [1] - 187:11 double [3] - 109:19, 117:20, 194:14 double-check [1] - 117:20 doubled [5] - 13:19, 17:9, 19:17, 48:3, 108:21 doubt [1] - 214:3 Douglas [1] - 198:8 down [73] - 5:9, 12:2, 18:15, 21:11, 21:17, 21:19, 21:24, 22:19, 23:12, 24:23, 25:15, 27:20, 27:24, 28:12, 28:14, 29:21, 30:6, 30:20, 32:10, 34:6, 38:18, 39:25, 44:16, 52:14, 52:23, 59:16, 60:6, 64:1, 66:3, 66:16, 67:15, 70:18, 70:19, 72:14, 94:1, 99:5, 105:5, 106:12, 119:1, 125:2, 133:23, 147:7, 149:23, 154:22, 166:20, 179:10, 183:9, 187:1, 192:6, 193:1, 196:16, 199:1, 210:11, 214:23, 214:24, 215:11, 222:5, 224:14, 228:5, 231:18, 231:22, 231:23, 247:20, 249:16, 249:22, 250:1, 254:2, 254:9 Downeast [1] - 84:12 downward [1] - 25:23 dozen [4] - 30:14, 55:24, 81:13, 81:15 Dr [5] - 84:2, 148:13, 197:5, 198:11, 259:15 drafted [1] - 94:25 draw [1] - 200:14 drive [2] - 198:22, 256:23 drop [7] - 112:16, 112:18, 134:8, 137:13, 170:20, 174:4, 174:5 dropped [7] - 78:24, 106:21, 112:20, 133:5, 155:12, 232:9 dropping [1] - 190:23 drops [1] - 107:12 due [2] - 86:5, 193:4</p>	<p>DUNITZ [80] - 3:4, 3:11, 3:17, 6:13, 7:4, 11:2, 80:3, 80:6, 89:8, 89:12, 89:14, 89:15, 97:9, 105:20, 105:22, 119:16, 119:20, 119:25, 120:6, 120:14, 120:17, 120:19, 121:1, 121:4, 121:11, 121:13, 121:22, 121:25, 125:16, 141:22, 142:5, 142:10, 142:25, 143:7, 143:11, 143:15, 143:17, 143:20, 144:3, 144:7, 144:10, 144:13, 144:17, 144:22, 147:4, 147:11, 147:13, 147:19, 147:23, 148:1, 148:12, 148:19, 148:22, 148:25, 149:5, 149:11, 149:12, 152:7, 187:24, 188:3, 188:9, 188:12, 188:15, 194:24, 195:2, 196:13, 196:21, 196:24, 197:5, 197:10, 198:10, 201:5, 218:15, 218:17, 219:10, 254:5, 254:17, 255:14, 256:8, 257:17 Dunitz [20] - 1:21, 3:11, 11:12, 80:1, 80:4, 80:9, 91:15, 105:19, 130:2, 142:15, 142:16, 142:19, 142:20, 152:15, 165:12, 168:20, 170:5, 188:16, 194:23, 196:19 during [23] - 7:7, 22:11, 25:14, 28:21, 47:7, 48:18, 78:3, 86:20, 127:23, 144:12, 149:3, 166:22, 169:9, 190:10, 197:6, 199:12, 203:15, 214:14, 216:18, 222:16, 222:25, 224:24, 247:23 dying [1] - 35:3</p>	<p>E</p> <p>e-mail [8] - 108:20, 109:17, 109:24, 110:2, 110:3, 110:5, 142:21, 146:20 e-mails [1] - 19:24 early [1] - 188:19 earn [1] - 104:10 earned [1] - 34:17 earnings [4] - 35:1, 35:10, 35:11, 126:16 easier [2] - 169:14, 222:18 easiest [1] - 120:10 easily [2] - 59:18, 63:1 easy [2] - 79:8, 231:12 eat [1] - 147:19 Econometrics [1] - 198:17 economic [7] - 13:14, 47:23, 48:9, 59:3, 77:12, 126:25, 220:2 Economic [1] - 2:9 economics [1] - 200:5 Economics [1] - 198:17 economist [1] - 213:19 economy [2] - 36:7, 92:8 education [4] - 80:23, 81:4, 81:12, 199:10 Education [1] - 199:8 Edward [1] - 1:17 effect [13] - 5:5, 25:12, 25:13, 26:11, 33:2, 44:5, 47:2, 171:7, 217:25, 224:17, 230:7, 233:4, 259:3 effects [5] - 71:20, 74:18, 74:20, 74:21, 230:22 efficiency [1] - 159:7 efficient [1] - 11:11 effort [2] - 247:5, 260:11 efforts [1] - 127:17 eight [7] - 22:3, 35:8, 93:21, 127:24, 128:3, 140:18, 144:8 either [27] - 7:6, 20:16, 30:8, 32:16, 48:6, 52:10, 64:23, 77:22, 79:21, 94:2, 107:15, 119:12, 130:1, 200:5, 206:25, 212:18, 213:12, 213:21, 214:12, 214:25, 215:18,</p>	<p>217:3, 220:1, 220:22, 225:18, 230:5, 257:11 elbow [1] - 5:10 element [2] - 159:3, 183:12 elements [1] - 154:12 eliminate [1] - 99:10 eliminating [1] - 209:24 embroidery [1] - 87:12 empirical [4] - 167:25, 168:2, 170:2, 245:8 employees [2] - 13:8, 190:4 empty [1] - 52:15 enclosures [1] - 87:12 end [40] - 8:24, 11:25, 30:20, 38:6, 39:25, 66:19, 67:1, 67:23, 68:11, 69:3, 69:24, 71:9, 72:6, 72:9, 75:3, 75:25, 85:11, 102:4, 102:6, 102:11, 141:15, 156:17, 167:21, 171:25, 176:9, 208:24, 213:5, 213:20, 214:21, 216:14, 222:23, 223:3, 239:13, 239:18, 244:20, 245:9, 255:3, 260:15 ended [3] - 65:11, 76:22, 228:12 ends [1] - 244:13 engaged [1] - 198:13 enjoy [1] - 59:2 enjoyed [1] - 254:10 ensue [1] - 79:8 enter [6] - 3:6, 51:10, 92:20, 144:8, 181:24, 218:19 entered [1] - 78:12 entering [2] - 104:14, 230:9 enterprise [1] - 237:25 enterprises [1] - 35:19 enthusiastic [4] - 48:1, 78:23, 109:16, 109:17 entire [1] - 46:16 entitled [2] - 1:15, 260:20 entries [4] - 19:2, 70:23, 175:1, 175:6 entry [7] - 63:21, 63:22, 63:25, 64:8, 65:19, 103:14, 232:22</p>
---	---	--	--

<p>187:22, 212:9 everyday [2] - 109:12 evidence [60] - 19:22, 47:15, 47:19, 48:6, 68:24, 74:23, 76:15, 76:20, 77:23, 78:22, 79:2, 107:11, 107:12, 107:14, 108:6, 108:8, 108:10, 108:12, 112:21, 129:2, 133:4, 134:4, 134:7, 145:16, 145:19, 145:21, 145:22, 146:12, 146:13, 146:22, 146:24, 190:9, 190:12, 190:13, 190:19, 190:21, 195:16, 206:9, 206:12, 224:22, 225:6, 225:8, 225:16, 225:17, 225:18, 226:17, 228:14, 229:9, 232:25, 233:1, 233:5, 237:17, 237:22, 242:2, 246:4, 246:5, 258:10 evidentiary [1] - 241:2 exact [3] - 41:11, 204:13, 253:24 exactly [6] - 11:12, 50:9, 121:12, 219:17, 240:19, 244:17 exam [1] - 255:1 examination [3] - 166:22, 226:5, 255:1 EXAMINATION [6] - 9:18, 80:5, 188:17, 195:1, 198:9, 219:21 examine [1] - 259:11 examined [2] - 7:18, 7:19 example [18] - 6:5, 201:18, 201:20, 202:14, 206:18, 210:4, 220:12, 220:13, 221:10, 223:10, 223:12, 227:3, 227:19, 237:23, 238:23, 239:7, 239:11, 258:19 examples [1] - 206:17 exceeding [1] - 107:16 Excel [3] - 22:7, 53:24, 195:19</p>	<p>excellent [1] - 103:7 except [5] - 73:14, 77:20, 77:25, 104:2, 156:15 excess [1] - 162:4 excludable [1] - 258:24 excluded [3] - 84:8, 84:16, 84:24 exclusion [1] - 85:2 exclusively [2] - 177:10, 177:22 excuse [11] - 10:9, 67:24, 89:18, 99:14, 102:19, 125:23, 132:15, 172:21, 180:10, 186:8, 190:15 exercise [6] - 30:23, 31:6, 204:20, 207:14, 207:19, 207:20 exercises [1] - 207:18 exhibit [12] - 37:6, 40:12, 57:8, 73:19, 73:22, 119:17, 120:11, 131:3, 142:2, 144:1, 144:5, 193:11 Exhibit [89] - 10:21, 18:4, 18:5, 19:1, 20:2, 20:5, 24:11, 24:13, 25:17, 26:18, 28:10, 28:23, 28:24, 31:10, 32:12, 32:25, 33:13, 33:21, 34:2, 34:7, 37:8, 37:10, 40:13, 41:2, 42:3, 42:10, 42:23, 43:18, 43:20, 44:3, 44:12, 44:17, 49:15, 57:8, 57:16, 58:5, 58:16, 58:22, 59:9, 59:12, 61:14, 61:17, 61:18, 61:23, 63:3, 67:17, 70:16, 72:13, 72:21, 73:21, 75:13, 105:10, 105:20, 117:12, 121:14, 122:1, 122:4, 123:12, 125:3, 128:12, 129:16, 129:23, 130:3, 131:3, 132:1, 132:15, 137:23, 150:23, 150:24, 151:23, 152:21, 152:24, 152:25, 154:4, 163:13, 174:8, 174:21,</p>	<p>177:3, 178:8, 179:8, 180:23, 185:5, 185:8, 192:5, 193:9, 194:6, 195:4, 243:22, 234:11, 234:22, 234:24, 234:25, 235:23, 238:14, 249:25, 250:6, 250:11, 250:14, 250:19, 251:1, 251:12, 259:13 expertise [7] - 103:7, 103:14, 188:20, 188:22, 188:25, 189:12, 219:23 experts [14] - 3:21, 8:9, 16:10, 39:9, 49:11, 49:12, 56:14, 56:19, 56:21, 83:2, 120:21, 225:5, 257:25, 260:9 expires [1] - 104:15 explain [20] - 14:19, 18:5, 19:2, 20:3, 26:19, 27:21, 28:8, 29:10, 40:14, 41:1, 50:8, 57:3, 70:23, 143:2, 148:15, 167:2, 200:8, 200:9, 217:21, 245:24 explained [4] - 52:3, 70:17, 166:23, 178:22 explaining [2] - 53:14, 102:22 explains [1] - 170:20 explanation [5] - 54:25, 107:5, 148:6, 228:11, 251:11 explanations [1] - 29:1 exploratory [1] - 176:10 explore [1] - 11:7 extended [1] - 4:23 extent [4] - 81:4, 101:13, 189:11, 204:18 extrapolate [1] - 15:21 extrapolated [1] - 18:12 extremes [1] - 213:17 eye [1] - 207:10</p>	<p>face [2] - 36:4, 166:10 facilities [1] - 14:22 facility [4] - 12:1, 17:5, 91:2, 247:15 fact [30] - 10:9, 20:15, 47:23, 91:12, 97:15, 101:3, 101:5, 101:18, 103:2, 114:21, 118:16, 190:14, 190:17, 190:19, 203:7, 203:10, 212:11, 215:9, 221:17, 222:15, 225:8, 238:25, 241:16, 242:13, 244:1, 247:25, 248:23, 249:4, 251:9, 252:25 factor [11] - 34:8, 40:5, 42:2, 44:22, 44:24, 72:5, 72:6, 76:5, 94:4, 161:21, 243:4 factored [4] - 26:8, 26:14, 232:19, 249:22 factories [1] - 94:1 factors [10] - 13:14, 38:19, 38:22, 38:23, 39:1, 40:2, 245:23, 247:2 factory [10] - 12:9, 21:18, 21:20, 23:12, 28:2, 28:11, 28:25, 29:19, 30:2, 190:20 facts [6] - 56:25, 59:8, 84:17, 84:19, 84:23, 189:8 factual [1] - 178:11 fail [2] - 206:21, 236:11 failed [2] - 17:25, 240:14 fails [1] - 217:7 failure [28] - 10:17, 26:5, 53:8, 65:3, 65:20, 67:10, 68:8, 76:14, 107:2, 159:16, 167:20, 168:19, 172:18, 173:8, 193:25, 194:3, 194:8, 194:11, 194:19, 223:5, 224:11, 229:14, 229:21, 231:4, 231:7, 233:4, 236:25, 243:4 fair [1] - 55:15 fairly [1] - 257:8 fall [1] - 10:5 fallout [1] - 230:22</p>	
			<p style="text-align: center;">F</p>	<p>F-I-L-L-E-R [1] - 9:15</p>

familiar [2] - 100:25, 127:4	80:23, 81:10, 83:7, 83:13, 83:17, 84:7, 85:20, 85:22, 86:11, 87:8, 88:15, 88:23, 90:23, 91:4, 92:22, 93:4, 93:15, 94:9, 96:22, 97:4, 97:8, 99:3, 99:12, 99:23, 100:11, 100:18, 100:25, 101:16, 102:24, 103:16, 104:4, 104:17, 105:3, 105:10, 106:23, 107:7, 107:9, 107:13, 107:16, 107:20, 108:1, 108:5, 108:13, 108:17, 110:7, 110:10, 110:13, 110:16, 110:21, 112:25, 113:3, 113:5, 113:9, 115:24, 117:11, 119:3, 119:5, 121:5, 121:14, 122:5, 123:12, 124:2, 124:10, 124:13, 124:24, 125:4, 125:5, 126:7, 127:4, 128:12, 129:15, 129:17, 130:6, 130:12, 130:23, 131:20, 131:24, 132:12, 132:25, 133:6, 134:23, 135:17, 136:13, 136:24, 137:23, 138:17, 139:4, 140:1, 140:22, 141:3, 142:17, 142:23, 144:23, 149:13, 150:9, 150:25, 151:8, 151:23, 152:3, 152:12, 152:22, 153:2, 155:14, 156:9, 157:4, 157:17, 157:20, 158:5, 158:15, 159:5, 159:17, 159:21, 159:24, 160:5, 160:14, 161:13, 161:24, 162:10, 162:18, 163:13, 163:16, 164:23, 165:7, 166:16, 166:22, 168:16, 168:21, 169:5, 170:15, 170:22, 171:12, 171:14, 171:22,	172:13, 173:13, 174:2, 174:8, 174:13, 174:17, 174:21, 175:13, 175:18, 175:24, 176:13, 177:3, 177:4, 177:17, 178:8, 179:2, 179:15, 180:11, 180:23, 181:7, 181:16, 182:14, 183:2, 184:6, 184:18, 185:6, 186:20, 187:2, 187:9, 187:11, 187:13, 188:19, 189:16, 195:3, 195:14, 195:24, 201:19, 205:16, 206:7, 206:19, 211:5, 216:21, 221:7, 224:16, 225:13, 225:17, 227:22, 228:11, 234:22, 238:20, 238:22, 239:8, 240:2, 248:17, 251:1, 251:24, 253:11	147:12, 147:14, 147:17, 240:12, 257:17 finish [2] - 143:19, 257:12 firm [2] - 27:8, 200:2 firm's [1] - 200:2 first [51] - 3:18, 7:17, 10:19, 11:11, 14:18, 14:19, 18:14, 21:12, 24:16, 29:19, 30:6, 36:21, 40:23, 50:8, 57:5, 58:2, 64:18, 64:19, 64:20, 67:16, 68:24, 72:4, 83:10, 94:18, 95:3, 95:6, 105:24, 106:2, 111:16, 116:11, 126:8, 141:5, 141:23, 155:10, 174:23, 187:20, 189:23, 199:7, 201:21, 202:3, 204:8, 209:11, 213:24, 215:2, 217:12, 217:16, 229:1, 234:10, 235:8, 246:14, 247:6	104:1, 104:2, 104:16, 116:6, 159:24, 160:20, 161:23, 215:3, 215:4, 215:5 flows [7] - 35:13, 35:21, 35:22, 45:16, 45:17, 45:23, 178:13 focus [6] - 14:18, 53:5, 59:22, 201:3, 259:8, 259:24 focused [1] - 259:19 foil [2] - 19:17, 194:14 folks [2] - 69:18, 256:17 follow [1] - 158:25 follow-up [1] - 158:25 followed [1] - 73:13 following [2] - 194:25, 206:6 follows [2] - 1:18, 209:1 foolish [1] - 219:19 foolishness [1] - 5:15 forces [7] - 212:25, 243:5, 243:7, 243:12, 243:17, 245:25 Ford [3] - 1:23, 260:17, 260:22 forecast [1] - 233:17 forecasted [1] - 71:25 forecasts [2] - 16:13, 236:16 foregoing [1] - 260:19 forever [2] - 212:1, 212:22 forget [2] - 119:16, 170:8 form [2] - 4:11, 95:4 forming [1] - 96:16 formula [9] - 33:16, 40:23, 44:22, 54:10, 54:16, 60:4, 64:15, 64:18, 202:18 forth [6] - 27:7, 31:17, 56:7, 98:10, 115:19, 187:22 forthcoming [1] - 134:7 forward [6] - 44:1, 65:7, 134:4, 145:16, 209:8, 215:2 forwarded [1] - 150:11 four [28] - 4:16, 8:12, 8:14, 10:7, 15:9, 20:3, 22:2, 46:12, 46:15, 46:17, 104:25, 125:25, 126:6, 136:20
---------------------------------	---	---	--	---

<p>136:24, 137:3, 137:7, 139:24, 140:12, 140:14, 154:17, 154:20, 154:22, 165:3, 173:11, 192:8, 219:15, 236:2 four-hour [2] - 8:12, 8:14 fourth [1] - 51:10 free [7] - 11:8, 34:22, 34:25, 35:12, 35:21, 37:11 freight [10] - 22:4, 22:5, 24:24, 25:25, 72:20, 72:24, 117:23, 118:19, 118:24, 123:1 frequently [2] - 203:3, 221:1 fresh [23] - 14:22, 24:1, 88:8, 88:16, 88:25, 91:24, 104:25, 114:6, 114:14, 114:17, 114:22, 115:2, 115:17, 116:18, 116:19, 169:12, 191:9, 191:11, 195:12, 195:13, 195:16, 195:23, 195:24 friction [2] - 109:1, 109:13 fringe [1] - 24:6 front [5] - 31:2, 210:4, 213:20, 216:14, 220:10 fuel [1] - 50:16 fuels [1] - 176:19 full [3] - 46:20, 94:17, 216:14 fully [1] - 72:10 fulsome [1] - 244:2 function [4] - 33:25, 118:24, 118:25, 259:10 functions [1] - 215:9 fundamental [1] - 226:6 fundamentally [1] - 225:25 funeral [1] - 3:25 future [16] - 13:13, 13:16, 45:15, 45:17, 46:12, 46:18, 50:24, 51:1, 51:5, 51:11, 51:16, 51:18, 71:24, 114:3, 170:5</p>	<p>G</p> <p>GAO [1] - 199:24 gap [1] - 15:15 gaps [1] - 170:20 garbage [8] - 225:14, 225:15, 226:2, 234:20, 237:9, 237:15 gasoline [2] - 50:16, 77:7 gather [1] - 73:5 gathered [2] - 11:20, 79:2 general [14] - 12:7, 13:17, 20:21, 20:23, 21:4, 21:7, 21:14, 28:3, 29:3, 29:23, 92:10, 165:9, 195:19, 195:21 generally [3] - 46:7, 220:1, 233:11 generate [3] - 68:1, 221:11, 245:4 generated [5] - 58:18, 163:5, 163:10, 202:4, 232:22 generates [3] - 66:9, 66:11, 238:19 generating [6] - 66:9, 205:18, 208:15, 208:22, 214:10, 242:25 generator [1] - 65:1 gentleman [1] - 250:19 gentlemen [1] - 3:16 geographically [1] - 52:10 geography [2] - 58:25, 158:13 germane [1] - 169:9 Gignoux [1] - 1:17 given [18] - 8:6, 23:10, 65:13, 69:25, 103:6, 134:21, 163:6, 164:14, 225:17, 225:19, 225:20, 228:21, 230:15, 230:24, 231:12, 235:8, 236:10, 255:23 glad [3] - 219:20, 254:10, 257:22 glue [1] - 24:21 goal [1] - 127:17 God [3] - 9:11, 198:5, 256:14 GoldSim [1] - 54:3 goods [1] - 212:15</p>	<p>government [1] - 35:15 graduate [1] - 80:16 granddaughters [1] - 219:16 grandkids [1] - 5:15 granted [1] - 232:17 Graph [1] - 2:17 great [5] - 34:11, 63:13, 200:19, 213:22, 260:11 greater [10] - 38:15, 59:2, 65:15, 127:9, 127:11, 127:12, 149:25, 242:9, 244:5, 244:23 greatest [3] - 52:6, 52:7, 67:18 grimace [1] - 4:22 gross [2] - 184:6, 184:9 ground [2] - 214:6, 222:15 groundwork [1] - 11:9 grown [1] - 49:6 guess [20] - 8:17, 49:1, 97:16, 105:6, 105:8, 105:9, 107:9, 115:25, 116:9, 140:8, 170:3, 170:4, 171:8, 208:24, 222:2, 223:17, 224:14, 233:10, 233:11 guesses [1] - 208:19 guessing [7] - 60:24, 107:7, 107:8, 207:23, 207:24, 214:2, 231:1 guy [2] - 199:17, 199:18</p>	<p>handbook [1] - 56:18 handed [9] - 4:18, 4:19, 94:10, 119:25, 120:2, 121:18, 121:22, 124:9, 129:24 handle [1] - 36:9 handling [1] - 256:4 hands [1] - 77:25 happenstance [1] - 217:24 happily [1] - 143:7 happy [5] - 8:11, 8:13, 34:1, 109:20, 198:15 hard [4] - 56:11, 63:13, 119:14, 190:12 harmonic [3] - 41:18, 41:23, 141:9 hate [1] - 7:21 head [1] - 203:11 heals [1] - 5:11 hear [13] - 8:13, 96:11, 209:3, 209:4, 219:20, 226:4, 237:21, 248:21, 248:25, 253:11, 259:20, 259:21, 260:2 heard [21] - 6:23, 96:9, 96:12, 96:15, 103:11, 107:1, 205:13, 205:14, 205:16, 209:16, 205:19, 213:25, 225:14, 228:3, 228:6, 228:19, 232:12, 232:14, 232:25, 235:18, 239:24 Hearing [1] - 1:16 hearing [13] - 8:2, 8:24, 8:25, 9:2, 9:10, 43:19, 86:9, 198:4, 218:20, 254:25, 257:3, 257:6 hearings [1] - 225:5 heat [1] - 30:16 heavily [1] - 228:7 heavy [1] - 60:5 held [3] - 1:16, 4:9, 258:14 help [7] - 9:11, 56:4, 82:9, 106:1, 152:14, 198:5, 248:3 helped [1] - 210:5 helpful [1] - 113:9 herniated [3] - 258:20, 258:22 hi [1] - 9:22</p>
---	--	--	--

188:2, 188:3, 188:6, 188:9, 188:15, 194:24, 196:13, 196:15, 196:22, 196:24, 197:5, 197:6, 197:13, 218:14, 218:24, 219:10, 219:13, 223:19, 237:11, 248:15, 250:15, 254:6, 255:12, 256:12, 256:20, 260:7	52:20, 77:20, 78:11, 86:20, 86:21, 86:25, 87:1, 190:18, 232:13	inaccurate [6] - 96:22, 96:24, 96:25, 98:24, 99:20, 156:18 IBCs [3] - 52:8, 58:13, 77:25 ICS [1] - 87:3 idea [13] - 16:4, 160:16, 170:12, 171:8, 184:11, 212:3, 217:18, 227:23, 227:24, 229:2, 238:4, 243:1, 249:12 ideal [8] - 22:15, 25:21, 25:22, 72:22, 73:2, 90:22, 118:3 identify [1] - 75:12 idle [1] - 162:11 idled [2] - 162:14, 162:16 ignore [1] - 222:10 ignored [1] - 64:17 ignoring [1] - 246:2 imagine [2] - 159:14, 258:5 imagined [1] - 165:22 immediate [1] - 201:24 imminence [1] - 129:7 impact [4] - 169:21, 176:21, 196:10, 223:14 impermanent [1] - 173:17 implementation [3] - 215:20, 230:5, 230:15 implication [1] - 259:15 implies [1] - 237:15 important [9] - 94:4, 109:9, 156:11, 157:3, 208:14, 211:2, 215:25, 237:7, 257:24 importantly [2] - 33:10, 39:19 improperly [1] - 79:23 improved [1] - 93:1 improvement [2] - 26:7, 32:9 improvements [1] - 23:7 impurities [1] - 50:15 in-between [6] - 15:15, 55:18, 64:14, 151:19, 208:14, 208:16 in/garbage [4] - 226:2, 234:20, 237:15	increased [15] - 26:15, 26:17, 28:18, 30:9, 43:14, 43:15, 43:16, 149:17, 150:6, 153:14, 153:20, 154:9, 154:10, 154:11, 214:6 increases [1] - 48:20 increasing [1] - 48:6 incremental [1] - 73:12 incubators [1] - 236:12 independent [1] - 82:12 independently [1] - 202:5 indicate [1] - 14:25 indicated [3] - 86:12, 87:22, 98:3 indicates [1] - 152:19 indicating [2] - 159:10, 159:18 indication [4] - 47:13, 47:15, 47:16, 228:24 indications [1] - 47:12 individual [2] - 35:2, 225:12 induce [2] - 179:24, 180:1 Industrial [1] - 41:5 industrial [2] - 24:20, 86:22 included [2] - 58:23, 58:25 includes [5] - 79:1, 163:8, 172:25, 178:14, 247:7 including [8] - 11:21, 24:6, 24:21, 32:13, 32:14, 161:7, 165:14, 173:10 income [1] - 45:14 incomes [2] - 55:10, 55:12 incomplete [1] - 230:5 inconsistencies [1] - 206:1 inconsistent [4] - 230:17, 231:5, 231:8, 246:1 incorrect [2] - 152:25, 155:10 increase [13] - 49:8, 49:9, 56:7, 101:22, 102:13, 113:21, 129:12, 133:4, 145:16, 153:18, 170:19, 176:25, 247:25	116:22, 116:23, 176:15, 176:17, 179:12, 181:25, 183:13, 189:22, 216:11, 225:20, 225:21, 227:9, 227:11, 229:9, 234:23, 234:24, 235:1, 235:9, 237:18, 244:11, 259:8, 259:11, 259:13 informed [1] - 113:12 initial [4] - 94:19, 218:18, 222:19, 258:8 injury [4] - 34:24, 257:7, 258:21, 258:23 input [10] - 58:2, 92:5, 155:23, 192:21, 204:24, 208:22, 209:21, 234:1, 248:16, 250:8 inputs [36] - 67:5, 130:10, 139:2, 157:3, 188:23, 189:1, 189:8, 192:3, 204:5, 205:11, 206:4, 209:2, 210:2, 216:7, 218:4, 221:6, 221:9, 226:9, 226:11, 226:16, 226:18, 226:21, 228:10, 228:21, 229:10, 229:11, 232:20, 233:18, 234:3, 235:10, 245:10, 248:16, 252:17, 253:25 inputted [1] - 192:22 inquiry [1] - 205:9 instance [9] - 27:12, 27:16, 30:4, 38:12, 44:23, 54:7, 64:16, 79:3, 118:6 instead [9] - 39:5, 51:5, 51:6, 75:5, 125:20, 199:10, 205:12, 231:10, 247:17 insufficient [4] - 84:17, 84:19, 113:25 insurance [1] - 82:9 intangible [6] - 42:12, 169:18, 190:13, 190:19, 190:21 integer [3] - 54:15, 167:8 intelligent [2] -
Ibbotson [1] - 38:4 IBC [10] - 24:21,				

<p>225:13, 260:10 intended [2] - 79:8, 158:10 intent [2] - 229:15, 230:15 interactive [1] - 202:10 interest [7] - 36:24, 42:16, 42:20, 42:25, 43:9, 43:10, 49:13 interested [2] - 201:1, 201:2 interesting [1] - 260:9 interim [1] - 147:22 intermediate [1] - 209:23 intermittent [1] - 118:15 internally [1] - 11:23 international [3] - 193:21, 193:24, 199:6 interpret [1] - 97:19 interpretation [1] - 61:22 interrupt [2] - 5:2, 143:18 interrupted [1] - 238:10 interruption [4] - 14:12, 14:13, 82:10, 82:13 interval [1] - 222:16 interview [1] - 93:6 introduce [1] - 9:20 introducing [1] - 217:4 introduction [1] - 83:10 introductory [1] - 253:19 invention [1] - 53:22 invest [1] - 56:5 invested [4] - 42:21, 47:11, 48:1, 109:14 investigate [1] - 159:14 investigation [1] - 214:12 investors [2] - 202:15, 202:19 invoices [3] - 24:2, 122:21, 180:14 invoking [1] - 235:22 involved [11] - 14:9, 16:24, 17:2, 17:6, 53:1, 90:23, 92:8, 111:5, 190:17, 251:10, 256:3 involving [1] - 79:4</p>	<p>Island [2] - 256:1, 257:19 isosceles [1] - 239:15 issue [25] - 3:19, 8:12, 11:1, 11:2, 11:7, 11:13, 77:9, 83:22, 100:8, 109:5, 145:5, 147:1, 157:12, 183:6, 200:22, 222:2, 223:18, 225:22, 225:23, 227:1, 241:15, 248:16, 254:24, 258:9, 259:25 issued [8] - 99:15, 137:2, 139:24, 139:25, 140:18, 145:23, 146:2, 146:6 issues [11] - 13:15, 79:12, 108:24, 109:8, 109:11, 167:16, 197:22, 216:4, 250:2 item [1] - 21:16 items [1] - 24:19 itself [5] - 8:2, 10:13, 85:16, 85:17, 182:8</p>	<p>242:2 justifying [1] - 71:13</p> <hr/> <p style="text-align: center;">K</p> <p>keep [9] - 125:2, 132:6, 170:14, 170:16, 201:9, 211:13, 212:18, 214:23, 232:8 keeping [2] - 172:19, 172:21 keeps [2] - 124:23, 124:25 kept [1] - 157:11 kerosene [1] - 50:16 key [4] - 156:20, 203:14, 204:4, 204:8 kick [3] - 17:1, 213:23, 246:15 kicks [1] - 202:12 kind [14] - 21:5, 36:2, 53:17, 82:4, 108:22, 211:3, 212:11, 214:13, 216:13, 217:15, 225:15, 233:5, 238:13, 238:16 kinds [2] - 51:15, 51:16 knowing [3] - 94:3, 198:21, 211:2 knowledge [2] - 78:6, 222:15 knowledgeable [1] - 236:7 knows [4] - 115:1, 204:18, 219:18, 256:15 Kurt [7] - 1:20, 3:9, 3:10, 7:24, 8:11, 141:23, 141:25 Kurt's [1] - 255:17</p> <hr/> <p style="text-align: center;">L</p> <p>labor [16] - 12:9, 21:25, 22:17, 23:21, 24:6, 24:23, 26:1, 29:4, 72:15, 72:20, 117:24, 122:25, 123:4, 123:6, 123:11 labor's [1] - 123:13 lack [6] - 103:15, 216:6, 221:15, 226:17, 226:20, 226:22 laid [2] - 53:21, 200:18 Lapoint [37] - 12:5, 12:20, 13:3, 40:6,</p>	<p>59:16, 62:9, 69:6, 73:3, 74:17, 78:24, 87:24, 92:7, 92:9, 93:3, 96:12, 97:22, 98:13, 100:13, 100:22, 101:14, 103:11, 109:18, 115:25, 116:12, 116:16, 146:15, 146:17, 176:14, 179:22, 190:1, 204:17, 227:7, 227:10, 228:7, 233:12, 237:22 Lapoint's [1] - 97:14 large [5] - 37:15, 39:24, 201:14, 220:13, 232:8 largely [1] - 4:11 larger [8] - 23:25, 43:14, 43:17, 73:8, 91:25, 135:14, 203:11, 245:21 largest [1] - 37:16 last [24] - 9:14, 14:13, 39:12, 69:11, 78:3, 105:5, 113:12, 113:15, 120:21, 129:19, 137:5, 137:11, 141:2, 141:25, 150:16, 150:18, 150:20, 186:4, 199:12, 216:17, 219:1, 247:23 lasted [1] - 257:9 late [1] - 108:25 latest [4] - 8:20, 85:16, 190:18, 194:16 law [1] - 34:14 laws [1] - 36:6 lawyer [1] - 5:4 lawyers [1] - 260:11 layer [2] - 194:13, 194:14 lead [1] - 204:5 learn [2] - 88:15, 91:4 least [11] - 5:17, 5:22, 8:19, 12:22, 79:4, 104:21, 117:16, 232:4, 242:16, 243:1, 259:16 leave [2] - 49:3, 49:4 leaves [1] - 167:17 leaving [3] - 226:16, 241:20, 253:20 ledger [8] - 12:7, 20:21, 20:23, 21:4, 21:7, 21:14, 195:19, 195:21</p>	<p>left [12] - 4:15, 4:16, 4:23, 7:1, 33:21, 57:24, 66:16, 70:17, 105:23, 199:7, 199:11, 199:25 left-hand [3] - 33:21, 57:24, 70:17 legal [2] - 13:15, 77:13 lend [1] - 237:24 length [1] - 255:23 less [19] - 39:17, 47:14, 48:24, 61:2, 61:9, 64:23, 65:15, 69:2, 70:20, 80:24, 104:25, 105:1, 173:11, 236:23, 244:4, 244:14, 244:23, 252:22 letter [1] - 150:10 letters [1] - 19:24 level [3] - 199:4, 216:25, 232:10 liabilities [1] - 42:17 library [1] - 81:15 life [2] - 35:5, 35:14 lifting [1] - 60:5 light [1] - 30:16 likelihood [2] - 208:17, 212:4 likely [25] - 52:4, 52:5, 53:3, 57:20, 57:23, 57:25, 59:1, 59:18, 59:22, 60:2, 60:14, 60:18, 61:3, 61:6, 62:18, 63:2, 64:12, 72:19, 158:14, 177:15, 205:4, 205:5, 205:6, 244:21, 258:16 limit [1] - 253:18 limitations [1] - 202:12 limiting [1] - 246:11 line [19] - 18:14, 19:1, 19:3, 20:2, 33:24, 34:2, 34:3, 47:7, 58:8, 71:14, 71:15, 72:24, 105:14, 105:22, 118:8, 124:14, 181:1, 181:7, 181:24 Line [12] - 91:17, 98:2, 98:8, 105:18, 110:22, 124:6, 124:13, 133:10, 133:23, 134:9, 177:18, 177:25 linear [1] - 32:2 liner [1] - 24:22 lines [11] - 20:3,</p>
---	--	---	---	--

20:24, 20:25, 21:1, 34:7, 34:12, 44:19, 72:14, 182:1	24:4, 26:21, 76:19, 86:23, 207:3, 210:14, 210:20, 247:15	25:24, 26:14, 39:7, 39:25, 56:6, 59:21, 149:18, 150:1, 178:23, 208:8, 208:19, 228:13, 228:16, 228:18, 229:5, 239:18, 239:25, 249:24	171:17, 260:13, 260:21 marginally [1] - 252:1	211:24 Master's [1] - 198:16
list [37] - 24:18, 38:19, 57:8, 58:23, 58:25, 60:22, 61:2, 61:10, 157:5, 158:11, 158:12, 158:18, 159:2, 162:22, 162:25, 163:11, 163:16, 163:17, 163:20, 165:19, 166:3, 166:13, 166:19, 174:13, 176:6, 178:17, 178:25, 180:7, 180:13, 194:6, 196:2, 227:18, 227:20, 228:3, 228:4, 231:16	looking [10] - 42:13, 63:5, 83:7, 204:3, 204:9, 207:21, 223:15, 246:9, 248:14, 256:14	lowered [5] - 44:7, 174:5, 179:24, 180:1, 180:4	Mark [5] - 2:2, 9:6, 9:15, 9:22 mark [13] - 119:17, 119:20, 120:6, 120:10, 142:3, 142:6, 142:10, 143:25, 144:12, 147:22, 188:7, 249:8, 249:9	matched [2] - 64:1, 65:18 matches [3] - 63:25, 64:7, 167:8
listed [4] - 40:2, 58:16, 76:7, 180:19	looks [3] - 140:8, 174:15, 187:14	lowering [2] - 33:2, 44:6	marked [10] - 5:23, 120:5, 120:13, 120:22, 121:9, 131:25, 134:25, 143:16, 143:17, 143:22	material [28] - 13:10, 20:2, 21:15, 21:21, 22:17, 25:25, 72:15, 72:19, 88:4, 89:25, 98:17, 98:19, 98:22, 117:23, 118:8, 121:16, 122:5, 130:21, 134:25, 135:14, 135:15, 135:18, 135:21, 136:2, 136:8, 136:14, 192:15, 192:18
listening [1] - 222:2	loss [16] - 3:23, 10:15, 15:4, 15:15, 15:18, 15:21, 36:18, 40:18, 40:19, 45:15, 46:25, 49:17, 85:5, 128:7, 183:7	lowest [1] - 233:12	market [59] - 13:12, 15:19, 15:20, 16:4, 37:15, 38:3, 38:13, 51:10, 58:19, 67:16, 68:9, 69:3, 69:9, 69:11, 69:25, 77:20, 78:13, 92:15, 100:3, 100:4, 100:5, 103:7, 103:12, 103:24,	materials [18] - 21:13, 21:15, 21:19, 21:23, 23:21, 23:22, 23:23, 24:2, 24:3, 24:17, 24:18, 24:19, 76:17, 118:6, 122:20, 123:1, 141:25, 251:23
listing [1] - 4:15	lost [74] - 10:1, 10:2, 10:5, 10:7, 10:11, 10:15, 10:16, 11:19, 15:3, 15:9, 18:7, 18:8, 32:15, 43:16, 45:8, 45:10, 45:17, 49:8, 49:16, 70:24, 72:1, 72:7, 73:20, 75:25, 76:12, 77:1, 77:3, 96:19, 96:25, 97:6, 104:4, 105:11, 117:3, 126:18, 127:5, 127:13, 127:18, 127:22, 127:24, 128:16, 128:25, 130:4, 130:14, 131:15, 132:7, 134:11, 138:8, 144:24, 149:14, 149:15, 149:19, 149:23, 150:2, 150:6, 152:4, 152:8, 152:18, 153:5, 154:3, 181:13, 181:18, 182:3, 182:4, 182:9, 182:23, 183:4, 183:8, 183:24, 197:15, 238:1, 247:25, 249:24	lunch [3] - 8:19, 144:19, 147:9	main [2] - 13:4, 128:24 MAINE [1] - 1:2 Maine [6] - 1:17, 20:16, 39:13, 127:6, 210:13, 260:18 majority [1] - 189:19 man [1] - 258:19 Management [1] - 55:23 management [3] - 93:6, 108:24, 189:6 Manhattan [1] - 53:21 manual [1] - 1:24 manufacture [1] - 87:8 manufacturer [5] - 20:15, 50:17, 78:11, 114:22, 115:3 manufacturers [1] - 191:10 manufactures [1] - 50:11 manufacturing [20] - 12:1, 12:3, 13:6, 17:4, 21:12, 22:9, 22:10, 22:22, 25:10, 79:19, 87:1, 88:7, 90:21, 90:22, 93:11, 118:4, 122:19, 220:16, 227:14, 236:6	math [5] - 177:8, 196:8, 202:20, 253:4, 254:11 Mathematical [1] - 198:16 mathematical [7] - 198:18, 202:18, 207:12, 237:13, 243:16, 246:11, 248:3 mathematically [1] - 198:22 mathematics [3] - 198:24, 237:12, 238:3 matter [7] - 1:15, 3:5, 20:15, 34:14, 202:1, 203:7, 260:20 matters [1] - 256:21 maximum [4] - 57:23, 58:3, 59:15, 63:16 mean [42] - 23:3, 24:22, 41:17, 41:18, 41:22, 41:23, 47:11, 48:17, 50:9, 56:3, 67:6, 96:23, 100:5, 100:9, 112:22, 120:1, 125:22, 133:21, 148:22, 153:15, 178:5, 190:11, 207:9, 214:7, 215:20, 222:3, 223:8
local [1] - 256:23	low [12] - 60:3, 63:13, 119:4, 149:14, 178:16, 178:19, 184:12, 205:4, 205:5, 232:22, 239:19	March [9] - 12:12, 16:18, 26:24, 29:16, 30:22, 46:14,	marketplace [4] - 78:12, 92:21, 93:1, 237:4 marking [3] - 120:23, 188:4, 219:3 markoff [2] - 211:22,	
looked [9] - 15:25,				

224:22, 229:22, 230:19, 232:5, 232:10, 232:24, 239:1, 239:16, 244:7, 245:4, 249:9, 249:25, 251:22, 252:9, 256:22 meaning [1] - 192:22 meaningless [1] - 169:18 means [15] - 6:5, 42:7, 42:11, 68:5, 173:24, 173:25, 198:23, 205:18, 207:22, 208:21, 211:25, 214:9, 219:3, 244:19, 252:10 meant [8] - 78:10, 78:11, 79:22, 98:14, 99:1, 125:11, 190:12, 223:3 measure [12] - 21:20, 23:15, 45:9, 45:17, 90:3, 90:4, 117:17, 126:13, 210:5, 217:10 measured [2] - 88:3, 217:25 measurement [1] - 90:5 measuring [1] - 89:25 mechanism [6] - 202:7, 208:23, 217:19, 242:23, 242:24 median [1] - 208:20 median-point [1] - 208:20 memoranda [1] - 197:22 memory [1] - 221:13 memos [1] - 19:23 men [1] - 219:18 mentally [1] - 23:18 mention [1] - 4:1 mentioned [7] - 78:15, 82:15, 84:24, 86:20, 192:16, 194:10, 197:18 mentions [1] - 103:25 message [1] - 4:5 met [2] - 12:19, 12:21 metal [1] - 52:8 method [30] - 15:7, 15:8, 15:10, 15:13, 15:16, 15:24, 16:1, 16:2, 16:8, 16:12, 18:3, 23:1, 36:17, 39:9, 49:11, 50:22, 51:20, 51:22, 110:7, 110:11, 110:14, 110:17, 111:19, 111:20, 111:23, 111:25, 112:3, 126:13, 127:23, 131:20, 131:23, 131:25, 132:13, 133:18, 136:20, 136:21, 138:14, 138:20, 141:5, 143:8, 144:23, 151:24, 152:2, 152:19, 153:8, 153:10, 153:11, 153:17, 153:22, 154:5, 154:25, 184:10, 184:14, 184:15, 184:16, 185:15, 185:22, 186:3, 186:5, 186:9, 187:4, 187:7, 187:8, 187:18, 187:19, 187:21, 192:8, 192:14, 253:23 millions [1] - 35:14 mind [9] - 12:16, 139:11, 139:12, 139:14, 140:5, 169:15, 170:14, 170:16, 221:25 minimal [2] - 51:25, 56:10 minimum [1] - 157:1 minor [2] - 69:10, 197:14 minus [5] - 10:4, 210:10, 227:22, 228:1, 251:13 minuses [2] - 30:25, 31:5 minute [21] - 94:9, 123:6, 123:18, 123:20, 123:24, 124:6, 124:7, 124:16, 124:17, 124:19, 125:7, 125:8, 125:14, 125:17, 125:18, 125:20, 125:22, 129:22, 196:25, 218:9 minutes [21] - 22:2, 22:3, 74:23, 124:1, 124:4, 124:22, 125:10, 125:12, 125:20, 125:25, 126:6, 128:8, 144:16, 147:11, 148:2, 148:8, 228:19, 249:20, 254:20, 255:18 mis [1] - 111:16 misinterpreted [1] - 98:22 mislead [1] - 259:17 misleading [3] - 216:3, 260:1, 260:2 misleads [1] - 259:5 misread [1] - 259:21 miss [1] - 207:15 missed [2] - 44:2, 141:21 missing [2] - 154:16, 207:16 misspelled [1] - 111:17 misspoke [5] - 93:10, 109:17, 109:21, 124:8, 124:17 mistake [2] - 86:5,	141:18 mistakes [4] - 22:20, 86:8, 128:5, 128:6 misunderstood [1] - 177:24 misused [2] - 79:11, 79:21 mitigated [1] - 151:17 mitigating [33] - 71:12, 114:10, 114:19, 115:8, 115:16, 115:19, 117:4, 117:7, 149:25, 150:5, 150:15, 150:17, 152:24, 153:13, 153:18, 153:20, 154:1, 154:8, 154:11, 154:12, 154:17, 154:18, 154:21, 154:23, 155:3, 155:11, 155:13, 179:3, 179:6, 179:13, 179:15, 179:19, 181:11 mitigation [8] - 71:17, 71:23, 71:24, 155:4, 224:7, 224:18, 224:20, 224:22 mode [1] - 60:1 model [143] - 15:19, 18:7, 32:1, 32:7, 45:20, 45:22, 48:15, 48:24, 50:23, 50:24, 50:25, 51:2, 51:3, 51:5, 51:13, 53:15, 54:5, 54:6, 56:23, 57:1, 58:15, 59:8, 62:23, 65:10, 66:17, 67:4, 67:11, 71:13, 74:3, 78:19, 78:24, 78:25, 110:24, 110:25, 111:6, 111:10, 111:11, 111:12, 111:15, 111:21, 111:22, 112:2, 112:9, 112:17, 112:19, 113:3, 113:13, 113:19, 113:20, 113:22, 114:5, 128:13, 129:9, 129:21, 131:4, 131:5, 131:19, 132:4, 134:5, 134:21, 134:25, 135:6, 135:10, 135:18, 135:21, 136:2, 136:14,	137:4, 137:5, 138:15, 138:20, 139:8, 139:18, 140:3, 145:9, 145:11, 145:12, 145:13, 145:14, 152:5, 159:15, 166:25, 167:10, 167:12, 167:18, 172:3, 173:7, 181:25, 182:8, 183:5, 188:23, 190:24, 191:1, 191:2, 191:25, 192:12, 206:8, 213:14, 213:20, 215:3, 216:10, 216:19, 216:20, 216:24, 217:1, 217:2, 221:10, 227:1, 229:10, 229:11, 229:12, 229:16, 229:20, 229:22, 230:1, 230:4, 230:6, 230:11, 230:18, 232:3, 233:8, 233:20, 235:1, 235:14, 237:13, 237:19, 237:20, 240:9, 240:10, 240:13, 243:9, 243:16, 245:1, 246:14, 247:7, 248:2, 249:1, 249:5, 253:7 Model [2] - 2:4, 2:8 modeling [6] - 55:21, 55:23, 55:24, 81:16, 212:23, 214:13 models [16] - 45:22, 56:12, 65:14, 71:8, 111:8, 113:24, 133:11, 184:20, 185:1, 190:25, 215:4, 218:5, 221:1, 221:4, 222:8, 245:3 modification [2] - 89:3, 91:24 modifications [1] - 48:3 modified [4] - 17:11, 19:17, 72:5, 153:6 Monday [11] - 150:10, 255:25, 256:2, 256:8, 256:9, 256:11, 256:14, 256:16, 257:4, 260:12, 260:13 money [3] - 48:4,
--	---	---

<p>202:15, 212:20 monopoly [7] - 69:9, 69:10, 78:13, 103:19, 213:3, 213:4, 213:18 month [21] - 12:10, 17:10, 17:14, 17:17, 18:11, 18:19, 26:25, 27:14, 29:16, 30:10, 30:12, 33:17, 47:10, 47:18, 66:24, 135:3, 136:3, 139:24, 175:21, 190:10, 210:9 monthly [10] - 11:23, 17:16, 18:16, 21:3, 26:22, 28:11, 29:21, 29:24, 30:5, 108:6 months [43] - 12:9, 12:11, 16:18, 16:19, 16:20, 17:12, 18:12, 18:13, 18:15, 18:21, 19:5, 25:14, 27:3, 27:4, 27:11, 27:13, 27:18, 27:19, 28:2, 28:20, 29:23, 31:1, 31:18, 52:13, 57:13, 78:4, 78:8, 107:21, 107:22, 118:12, 118:22, 169:10, 171:3, 185:25, 186:3, 187:17, 213:9, 213:10, 244:5, 244:6, 244:13, 244:15 morning [15] - 3:2, 3:3, 3:4, 9:20, 80:7, 114:3, 137:24, 142:1, 150:24, 178:22, 201:20, 209:16, 212:14, 228:3 morning's [1] - 205:15 mortgage [1] - 199:20 most [36] - 39:19, 52:4, 53:3, 57:20, 57:22, 57:25, 59:1, 59:17, 59:22, 60:2, 60:14, 60:18, 61:2, 61:6, 62:18, 63:1, 64:12, 72:19, 82:5, 82:6, 96:8, 127:14, 158:13, 176:15, 177:15, 199:19, 200:4, 204:10, 205:4, 205:5, 205:6, 222:10, 235:8, 239:18, 253:16 mostly [2] - 205:11, 218:7 </p>	<p>Motion [1] - 1:16 motion [4] - 218:18, 219:4, 219:5, 219:8 move [16] - 5:9, 10:23, 12:15, 22:25, 34:1, 43:18, 55:9, 57:10, 70:18, 144:19, 154:21, 183:22, 197:13, 210:22, 250:9, 257:13 moved [3] - 30:10, 30:12, 57:13 movement [1] - 61:9 moves [1] - 32:21 moving [5] - 69:21, 85:7, 140:6, 140:10, 213:13 MR [175] - 3:3, 3:4, 3:8, 3:10, 3:11, 3:13, 3:17, 3:21, 4:4, 4:7, 4:8, 4:19, 5:1, 5:7, 5:14, 5:19, 6:2, 6:8, 6:13, 6:16, 6:18, 6:22, 6:25, 7:4, 7:11, 7:13, 7:14, 8:5, 8:14, 8:17, 8:21, 8:22, 9:3, 9:5, 9:17, 9:19, 10:19, 11:2, 11:10, 11:17, 19:9, 70:9, 70:14, 70:15, 79:24, 80:3, 80:6, 89:8, 89:12, 89:14, 89:15, 97:9, 97:10, 105:20, 105:22, 119:16, 119:20, 119:25, 120:6, 120:14, 120:17, 120:19, 120:20, 121:1, 121:4, 121:8, 121:11, 121:13, 121:22, 121:25, 125:16, 130:1, 141:22, 142:5, 142:10, 142:14, 142:25, 143:4, 143:7, 143:10, 143:11, 143:15, 143:17, 143:20, 143:23, 144:3, 144:7, 144:10, 144:13, 144:17, 144:22, 147:4, 147:11, 147:13, 147:15, 147:17, 147:23, 148:1, 148:7, 148:12, 148:19, 148:22, 148:25, 149:5, 149:11, 149:12, 152:7, 187:24, </p> <p style="text-align: center;">N</p> <p>NAICS [3] - 41:7, 87:14, 87:18 name [5] - 9:14, 81:11, 174:21, 174:23 named [1] - 250:19 names [4] - 81:14, 141:9, 158:25, 195:9 Nancy [6] - 3:22, 148:13, 148:23, 254:24, 256:9,</p>	<p>188:2, 188:3, 188:6, 188:9, 188:12, 188:15, 188:18, 194:21, 194:24, 195:2, 196:13, 196:15, 196:21, 197:10, 197:11, 198:4, 203:25, 204:1, 242:15, 247:3, 247:4, 248:23 new [19] - 13:14, 19:16, 25:10, 27:2, 36:5, 48:23, 58:7, 58:8, 64:6, 78:11, 85:23, 92:14, 92:18, 119:24, 128:6, 150:11, 239:25, </p>	<p>256:22 narrative [1] - 4:11 narrow [1] - 251:14 narrowed [1] - 127:21 National [1] - 41:5 naturally [1] - 235:15 nature [1] - 107:18 near [2] - 115:3, 257:6 necessarily [9] - 39:6, 39:7, 87:14, 170:19, 171:3, 209:13, 236:10, 253:16 NI [1] - 41:5 nice [2] - 202:17, 231:11 nine [2] - 35:8, 215:6 nobody [10] - 62:21, 77:20, 77:24, 92:19, 104:2, 115:19, 212:12, 212:16, 246:9, 257:8 nominal [1] - 74:8 non [8] - 34:21, 163:23, 164:1, 164:3, 164:11, 164:15, 164:23 non-resid [7] - 163:23, 164:1, 164:3, 164:11, 164:15, 164:23 non-risk [1] - 34:21 none [9] - 83:4, 137:1, 145:2, 175:11, 195:11, 215:18, 244:6, 244:8, 245:25 normal [13] - 36:3, 55:3, 55:6, 60:7, 62:15, 76:1, 109:2, 206:18, 206:22, 207:1, 207:3, 208:2, 251:17 normalize [1] - 27:4 normalized [5] - 28:17, 29:6, 31:13, 31:15, 31:18 normalizing [3] - 12:8, 28:1, 31:7 normally [3] - 206:20, 206:22, 207:8 North [14] - 41:5, 52:22, 70:4, 105:4, 161:24, 162:3, 162:19, 162:24, 163:5, 164:10, 164:17, 164:19, 166:4, 166:19 not-resid [1] - 163:24 note [2] - 42:15, 90:15 noted [6] - 70:10, 70:12, 149:7, 149:9, </p>
--	---	--	---

197:2, 197:4 notes [19] - 86:9, 86:12, 86:13, 86:15, 86:16, 86:18, 89:16, 89:17, 89:19, 89:21, 94:25, 97:11, 97:16, 97:20, 98:5, 98:16, 98:22, 101:19, 197:6 nothing [10] - 9:3, 9:11, 79:19, 190:13, 196:13, 198:5, 234:20, 239:10, 241:22, 254:5 notice [3] - 1:15, 63:25, 141:21 noticed [1] - 83:8 November [6] - 26:22, 26:23, 27:6, 29:15, 30:17, 31:15 novo [1] - 221:22 nowhere [1] - 203:15 Number [4] - 2:4, 120:13, 121:3, 192:5 number [106] - 4:14, 11:20, 35:9, 43:15, 43:24, 54:3, 54:8, 54:9, 54:14, 54:18, 55:1, 55:5, 57:6, 57:15, 59:11, 59:21, 59:22, 59:23, 59:24, 62:17, 63:23, 63:24, 63:25, 64:5, 64:6, 64:7, 64:14, 64:17, 65:1, 65:6, 65:15, 65:18, 66:11, 66:22, 67:3, 67:17, 67:20, 68:5, 68:23, 69:18, 71:13, 87:6, 87:18, 99:6, 105:3, 105:24, 106:1, 118:20, 118:21, 125:1, 127:23, 136:10, 144:2, 151:17, 151:25, 152:21, 155:2, 155:5, 155:11, 156:11, 156:12, 156:20, 157:1, 164:16, 165:9, 166:4, 169:6, 180:25, 181:24, 182:14, 183:19, 183:24, 186:1, 186:8, 192:6, 192:22, 193:1, 206:12, 208:23, 209:10, 210:25, 211:2, 211:3, 223:16, 227:24, 233:16, 241:25, 242:1, 242:4, 242:9	245:12, 245:18, 246:21, 246:24, 249:2, 253:13, 253:23 numbers [55] - 6:2, 29:24, 33:12, 40:4, 41:6, 55:2, 56:11, 58:2, 58:4, 60:7, 64:4, 64:5, 64:14, 71:25, 72:2, 72:18, 75:17, 90:8, 90:10, 119:9, 119:11, 119:12, 121:16, 127:24, 128:2, 130:6, 130:24, 131:6, 131:9, 131:17, 131:18, 145:2, 151:14, 174:25, 192:6, 192:7, 199:24, 201:22, 201:23, 202:3, 202:4, 202:24, 203:1, 203:10, 204:19, 204:21, 204:23, 205:1, 205:8, 205:12, 216:7, 227:7, 242:25, 253:13, 253:22 numerators [2] - 41:20, 41:21	84:9, 117:16 occur [6] - 8:15, 51:18, 71:18, 215:17, 216:12, 221:12 occurred [14] - 26:15, 68:8, 71:17, 222:4, 222:11, 222:14, 223:16, 223:24, 224:23, 229:14, 229:21, 230:18, 230:21, 231:6 occurring [2] - 62:17, 62:19 occurs [1] - 203:4 October [16] - 12:12, 16:18, 17:8, 26:22, 26:23, 27:5, 29:15, 30:4, 30:8, 30:10, 30:11, 30:15, 30:16, 48:8, 108:22, 175:24 odds [1] - 177:20 OF [1] - 1:2 offer [3] - 11:3, 128:3, 128:6 offered [2] - 128:3, 142:2 offering [1] - 248:1 office [1] - 12:23 offices [1] - 200:3 Official [3] - 1:23, 260:17, 260:23 offset [2] - 103:15, 176:23 often [4] - 92:14, 92:25, 162:14, 191:23 Oil [1] - 14:21 oil [5] - 14:23, 50:15, 50:16, 102:15, 176:25 OLAFSEN [71] - 3:3, 3:10, 4:8, 4:19, 5:1, 5:7, 5:14, 5:19, 6:2, 6:8, 6:16, 6:18, 6:22, 6:25, 7:13, 8:14, 8:21, 9:5, 9:17, 9:19, 10:19, 11:10, 11:17, 19:9, 70:9, 70:14, 70:15, 79:24, 97:10, 120:20, 121:8, 130:1, 142:14, 143:4, 143:10, 143:23, 147:17, 148:7, 188:2, 188:6, 188:18, 194:21, 196:15, 197:11, 197:20, 197:24, 218:14, 219:13, 219:18, 219:22,	222:1, 222:6, 222:22, 223:8, 223:19, 223:23, 224:6, 224:15, 224:24, 225:3, 226:9, 226:12, 226:15, 248:14, 250:16, 254:3, 256:12, 256:24, 258:2, 258:5, 260:7 Olafsen [31] - 1:20, 3:10, 3:17, 70:13, 85:22, 94:24, 96:13, 100:14, 111:7, 111:8, 111:24, 112:8, 112:14, 113:11, 133:15, 134:2, 134:3, 134:6, 137:24, 142:13, 143:22, 145:9, 150:24, 195:15, 196:4, 206:8, 206:10, 218:13, 219:12, 219:15, 256:10 Olafsen's [1] - 215:20 old [1] - 239:24 OMB [1] - 199:24 once [20] - 34:18, 35:11, 115:1, 116:12, 156:13, 156:7, 156:8, 166:1, 168:4, 168:17, 174:16, 175:6, 181:20, 181:21, 182:2, 182:3, 182:8, 184:3, 192:4, 194:4, 197:13, 197:14, 202:10, 203:18, 205:22, 206:12, 206:18, 209:15, 210:18, 211:2, 211:15, 211:16, 212:11, 214:3, 214:4, 214:15, 215:5, 215:16, 216:9, 218:15, 221:21, 222:3, 222:14, 223:13, 223:16, 225:3, 225:21, 226:16, 227:19, 228:3, 232:14, 233:16, 239:3, 239:12, 239:13, 239:16, 240:22, 244:22, 245:12, 246:18, 247:17, 248:9, 250:9, 250:17, 251:12, 252:5, 252:6, 252:16 one's [1] - 88:13 ones [7] - 6:9, 114:7, 121:23, 136:17,
---	---	---	---

138:12, 166:20, 194:7 onion [1] - 259:23 open [2] - 3:1, 160:4 opened [1] - 58:12 opens [1] - 257:1 operate [4] - 92:13, 102:1, 102:2, 217:1 operating [2] - 78:5, 105:4 operation [4] - 200:2, 214:6, 220:16, 232:22 operations [2] - 200:6, 215:10 opine [1] - 243:14 opined [2] - 101:21, 127:23 opining [1] - 243:15 opinion [69] - 6:19, 7:6, 11:4, 49:25, 56:12, 68:9, 76:5, 78:25, 83:22, 87:2, 93:8, 95:7, 95:20, 99:12, 99:16, 102:9, 103:13, 112:13, 112:22, 127:18, 127:22, 128:10, 128:14, 129:20, 130:7, 131:15, 131:21, 131:25, 132:8, 133:17, 133:25, 134:10, 137:2, 138:1, 138:3, 138:25, 141:2, 142:19, 143:5, 143:9, 144:23, 145:15, 145:19, 145:23, 146:2, 150:11, 151:12, 152:19, 153:21, 154:8, 155:7, 155:8, 155:9, 171:20, 173:3, 173:13, 173:19, 184:19, 196:10, 200:23, 234:13, 240:22, 250:2, 251:7, 251:21, 252:7, 258:10, 258:25 opinions [41] - 7:7, 14:16, 78:18, 85:9, 85:13, 85:23, 91:7, 91:10, 94:19, 94:25, 95:14, 95:24, 95:25, 96:6, 96:15, 120:8, 127:13, 128:4, 128:9, 132:12, 134:24, 137:7, 138:18, 140:18,	141:24, 142:1, 142:6, 143:12, 148:16, 191:15, 197:15, 198:13, 200:9, 200:17, 200:18, 201:1, 248:1, 250:4, 250:7, 259:9, 259:10 opportunity [5] - 104:10, 190:3, 190:6, 237:3, 245:21 opposed [10] - 40:16, 50:22, 51:21, 217:9, 230:8, 233:13, 242:23, 245:12, 251:6, 253:4 opposite [1] - 107:15 opt [1] - 113:18 opted [1] - 113:20 options [1] - 257:3 oral [1] - 255:22 order [4] - 61:13, 76:24, 90:9, 178:24 orders [13] - 17:14, 17:18, 17:19, 17:20, 17:22, 38:15, 47:14, 76:23, 108:22, 109:19, 197:16 ordinary [1] - 166:9 orient [1] - 10:13 oriented [1] - 106:1 original [19] - 6:9, 44:11, 44:12, 44:13, 107:16, 111:14, 119:21, 120:7, 120:8, 120:20, 128:12, 129:15, 129:16, 130:7, 130:13, 130:25, 131:1, 150:5, 150:25 originally [5] - 58:17, 78:19, 113:18, 145:12, 193:14 originals [2] - 9:7, 119:23 otherwise [2] - 49:4, 144:5 ought [4] - 22:17, 134:8, 166:20, 170:20 outcome [5] - 204:8, 209:25, 245:9, 245:15, 245:20 outcomes [11] - 55:11, 55:12, 203:2, 203:5, 203:16, 203:17, 214:19, 216:16, 245:1, 247:3, 247:7 outline [1] - 248:14 output [8] - 54:17,	156:6, 182:7, 182:8, 182:25, 183:12, 204:12, 210:1 outputs [3] - 203:23, 204:3, 204:6 outside [1] - 81:25 outward [1] - 15:11 over-reading [1] - 234:18 overall [2] - 164:16, 242:8 overestimated [1] - 245:16 Overhead [2] - 2:6, 2:13 overhead [34] - 12:9, 26:18, 26:19, 26:21, 28:2, 28:6, 28:11, 28:14, 28:16, 28:25, 29:6, 29:19, 30:2, 30:3, 30:4, 31:11, 31:15, 31:18, 31:24, 32:10, 32:12, 32:20, 32:21, 32:24, 33:6, 33:15, 33:22, 34:1, 73:12, 73:19, 73:24, 73:25, 240:18, 240:23 overseas [2] - 51:25, 157:14 overstates [2] - 46:25, 258:17 own [11] - 5:14, 103:12, 166:12, 166:20, 200:2, 201:11, 214:8, 229:8, 234:10, 238:14, 249:25 owner [2] - 60:12, 259:11 owners [1] - 236:15 owning [1] - 161:22 owns [1] - 160:8	38:11, 38:16, 38:20, 39:9, 41:9, 41:14, 45:7, 47:5, 48:10, 49:20, 50:19, 51:23, 52:5, 52:9, 52:21, 52:23, 53:7, 55:16, 55:17, 56:3, 57:7, 58:6, 58:8, 58:9, 58:15, 58:18, 58:21, 61:4, 61:11, 63:14, 63:16, 67:20, 68:9, 68:14, 68:18, 68:23, 69:16, 69:19, 71:3, 71:19, 72:10, 76:1, 76:6, 77:2, 77:20, 77:25, 78:4, 78:15, 79:9, 79:10, 79:12, 87:2, 87:5, 87:17, 88:1, 91:13, 91:18, 92:4, 93:18, 97:24, 102:24, 103:6, 103:9, 104:2, 104:24, 106:18, 108:18, 108:23, 115:3, 115:19, 115:22, 116:25, 117:5, 117:7, 117:16, 118:15, 122:17, 129:2, 141:17, 157:6, 158:5, 158:8, 158:16, 160:2, 161:12, 161:20, 164:15, 165:16, 165:17, 165:18, 166:20, 168:15, 168:16, 168:24, 169:13, 171:8, 171:16, 172:7, 173:14, 174:14, 175:25, 177:5, 177:10, 177:22, 178:6, 178:22, 179:7, 179:11, 180:16, 180:21, 181:1, 182:11, 184:11, 184:20, 185:9, 186:11, 190:4, 190:15, 193:12, 193:13, 193:20, 193:23, 194:2, 194:18, 196:5, 211:1, 221:21, 224:1, 226:24, 230:20, 232:13, 232:15, 236:6, 247:9 Packgen's [18] - 10:1, 12:14, 26:4, 43:24, 47:17, 49:16, 60:22, 63:11, 79:20, 96:18,
--	---	--	---

parties [2] - 3:1, 257:23	65:3, 65:7, 65:19, 67:5, 67:7, 67:10, 67:17, 67:25, 68:2, 68:3, 68:4, 68:7, 68:10, 68:13, 68:19, 68:20, 68:22, 68:25, 69:4, 69:20, 69:24, 71:7, 72:25, 73:1, 73:25, 74:2, 76:2, 101:22, 102:13, 102:21, 104:22, 104:25, 105:1, 127:1, 127:9, 127:11, 127:12, 128:22, 159:13, 159:15, 161:7, 161:23, 164:6, 164:9, 166:23, 167:3, 167:11, 167:13, 167:15, 167:17, 167:19, 167:23, 167:25, 168:5, 168:19, 169:16, 170:10, 172:18, 172:19, 172:20, 172:25, 173:7, 173:8, 173:11, 173:18, 177:2, 177:12, 177:19, 177:20, 177:21, 177:23, 178:5, 178:20, 178:21, 184:5, 184:13, 184:14, 210:7, 210:10, 210:12, 210:16, 210:19, 227:23, 228:1, 228:5, 228:6, 228:8, 228:18, 228:20, 232:10, 236:10, 237:6, 241:4, 241:6, 241:9, 241:13, 241:17, 241:20, 242:3, 242:4, 242:7, 242:8, 242:22, 252:18, 252:19, 252:23, 253:4, 253:21	25:8, 25:9, 26:25, 28:22, 29:17, 45:1, 45:3, 46:17, 47:8, 47:10, 48:18, 71:18, 74:5, 74:14, 75:5, 100:2, 100:12, 102:5, 102:7, 102:11, 104:8, 104:15, 175:20, 190:10, 235:19, 236:3, 243:18	217:17, 234:10 placed [3] - 67:19, 76:24, 156:10 places [1] - 52:19 placing [1] - 259:3 plain [1] - 5:24 plaintiff [9] - 3:10, 4:10, 9:6, 133:1, 158:5, 163:1, 163:6, 248:12, 257:24 Plaintiff [2] - 1:5, 1:20 plaintiff's [6] - 5:24, 76:17, 94:11, 115:16, 133:1, 150:10	260:1, 260:2 pointing [1] - 248:10 points [10] - 22:11, 60:1, 156:11, 156:20, 201:10, 207:4, 208:7, 208:8, 208:14, 208:16 poisoned [1] - 224:2 political [2] - 13:13, 77:11 politics [1] - 174:4 polypropylene [3] - 21:21, 77:21, 87:21 pool [1] - 202:16 pools [1] - 220:14 popped [1] - 160:4 population [1] - 199:10 portion [2] - 32:16, 99:18 Portland [1] - 1:17 posed [1] - 57:19 position [1] - 7:22 positive [1] - 27:17 possibilities [2] - 55:18, 230:6 possibility [3] - 78:20, 180:4, 258:2 possible [4] - 77:2, 230:8, 256:22, 258:6 post [1] - 169:10 post-incident [1] - 169:10 posted [1] - 28:10 posts [1] - 27:9 potential [7] - 52:25, 53:3, 117:4, 117:6, 154:21, 159:3, 166:16 potentially [3] - 7:19, 254:19, 255:3 power [3] - 213:1, 213:2, 246:20 practice [1] - 128:3 practitioners [1] - 53:25 Pratt's [2] - 2:9, 41:4 pre [7] - 166:10, 168:21, 169:3, 169:7, 169:8, 169:20, 194:10 pre-incident [7] - 166:10, 168:21, 169:3, 169:7, 169:8, 169:20, 194:10 predecessors [1] - 79:5 predict [1] - 209:13 predicted [5] - 61:23, 61:25, 62:6, 170:10,	
percent [156] - 32:8, 33:16, 33:18, 33:22, 33:23, 37:14, 37:17, 37:18, 37:19, 37:20, 37:21, 37:23, 37:25, 38:8, 38:9, 38:12, 38:21, 39:14, 39:21, 40:17, 43:1, 43:2, 43:3, 43:4, 43:5, 43:7, 44:21, 44:25, 46:3, 46:9, 49:6, 50:2, 57:18, 57:22, 57:23, 60:9, 60:10, 61:7, 61:8, 62:21, 62:22, 63:12, 65:2,	253:17	percentage [3] - 102:18, 102:20, 253:17	percentile [1] - 37:23 perfect [1] - 201:24 perhaps [6] - 52:1, 146:3, 239:22, 246:18, 255:19, 257:13	period [36] - 11:23, 12:10, 16:16, 17:10, 17:15, 17:17, 25:7,	25:3, 25:7, 26:19, 27:5, 27:7, 27:10, 27:17, 27:25, 28:2, 28:5, 28:18, 28:21, 28:24, 28:25, 29:1, 29:4, 29:17, 29:20, 29:23, 29:25, 30:1, 30:4, 30:17, 30:20, 30:23, 30:25, 31:1, 31:4, 31:17, 31:20, 31:23, 31:25, 32:1, 32:4, 32:17, 32:20, 32:23, 32:25, 33:1, 33:4, 33:17, 33:20, 33:23, 33:25, 34:1, 34:4, 34:17, 34:20, 34:23, 34:25, 35:1, 35:4, 35:17, 35:20, 35:23, 35:25, 36:1, 36:4, 36:17, 36:20, 36:23, 36:25, 37:1, 37:4, 37:17, 37:20, 37:23, 37:25, 38:1, 38:4, 38:17, 38:20, 38:23, 38:25, 39:1, 39:4, 39:17, 39:20, 39:23, 39:25, 40:1, 40:4, 40:17, 40:20, 40:23, 40:25, 41:1, 41:4, 41:17, 41:20, 41:23, 41:25, 42:1, 42:4, 42:17, 42:20, 42:23, 42:25, 43:1, 43:4, 43:17, 43:20, 43:23, 43:25, 44:1, 44:4, 44:17, 44:20, 44:23, 44:25, 45:1, 45:4, 45:17, 45:20, 45:23, 45:25, 46:1, 46:4, 46:17, 46:20, 46:23, 46:25, 47:1, 47:4, 47:17, 47:20, 47:23, 47:25, 48:1, 48:4, 48:17, 48:20, 48:23, 48:25, 49:1, 49:4, 49:17, 49:20, 49:23, 49:25, 50:1, 50:4, 50:17, 50:20, 50:23, 50:25, 51:1, 51:4, 51:17, 51:20, 51:23, 51:25, 52:1, 52:4, 52:17, 52:20, 52:23, 52:25, 53:1, 53:4, 53:17, 53:20, 53:23, 53:25, 54:1, 54:4, 54:17, 54:20, 54:23, 54:25, 55:1, 55:4, 55:17, 55:20, 55:23, 55:25, 56:1, 56:4, 56:17, 56:20, 56:23, 56:25, 57:1, 57:4, 57:17, 57:20, 57:23, 57:25, 58:1, 58:4, 58:17, 58:20, 58:23, 58:25, 59:1, 59:4, 59:17, 59:20, 59:23, 59:25, 60:1, 60:4, 60:17, 60:20, 60:23, 60:25, 61:1, 61:4, 61:17, 61:20, 61:23, 61:25, 62:1, 62:4, 62:17, 62:20, 62:23, 62:25, 63:1, 63:4, 63:17, 63:20, 63:23, 63:25, 64:1, 64:4, 64:17, 64:20, 64:23, 64:25, 65:1, 65:4, 65:17, 65:20, 65:23, 65:25, 66:1, 66:4, 66:17, 66:20, 66:23, 66:25, 67:1, 67:4, 67:17, 67:20, 67:23, 67:25, 68:1, 68:4, 68:17, 68:20, 68:23, 68:25, 69:1, 69:4, 69:17, 69:20, 69:23, 69:25, 70:1, 70:4, 70:17, 70:20, 70:23, 70:25, 71:1, 71:4, 71:17, 71:20, 71:23, 71:25, 72:1, 72:4, 72:17, 72:20, 72:23, 72:25, 73:1, 73:4, 73:17, 73:20, 73:23, 73:25, 74:1, 74:4, 74:17, 74:20, 74:23, 74:25, 75:1, 75:4, 75:17, 75:20, 75:23, 75:25, 76:1, 76:4, 76:17, 76:20, 76:23, 76:25, 77:1, 77:4, 77:17, 77:20, 77:23, 77:25, 78:1, 78:4, 78:17, 78:20, 78:23, 78:25, 79:1, 79:4, 79:17, 79:20, 79:23, 79:25, 80:1, 80:4, 80:17, 80:20, 80:23, 80:25, 81:1, 81:4, 81:17, 81:20, 81:23, 81:25, 82:1, 82:4, 82:17, 82:20, 82:23, 82:25, 83:1, 83:4, 83:17, 83:20, 83:23, 83:25, 84:1, 84:4, 84:17, 84:20, 84:23, 84:25, 85:1, 85:4, 85:17, 85:20, 85:23, 85:25, 86:1, 86:4, 86:17, 86:20, 86:23, 86:25, 87:1, 87:4, 87:17, 87:20, 87:23, 87:25, 88:1, 88:4, 88:17, 88:20, 88:23, 88:25, 89:1, 89:4, 89:17, 89:20, 89:23, 89:25, 90:1, 90:4, 90:17, 90:20, 90:23, 90:25, 91:1, 91:4, 91:17, 91:20, 91:23, 91:25, 92:1, 92:4, 92:17, 92:20, 92:23, 92:25, 93:1, 93:4, 93:17, 93:20, 93:23, 93:25, 94:1, 94:4, 94:17, 94:20, 94:23, 94:25, 95:1, 95:4, 95:17, 95:20, 95:23, 95:25, 96:1, 96:4, 96:17, 96:20, 96:23, 96:25, 97:1, 97:4, 97:17, 97:20, 97:23, 97:25, 98:1, 98:4, 98:17, 98:20, 98:23, 98:25, 99:1, 99:4, 99:17, 99:20, 99:23, 99:25, 100:1, 100:4, 100:17, 100:20, 100:23, 100:25, 101:1, 101:4, 101:17, 101:20, 101:23, 101:25, 102:1, 102:4, 102:17, 102:20, 102:23, 102:25, 103:1, 103:4, 103:17, 103:20, 103:23, 103:25, 104:1, 104:4, 104:17, 104:20, 104:23, 104:25, 105:1, 105:4, 105:17, 105:20, 105:23, 105:25, 106:1, 106:4, 106:17, 106:20, 106:23, 106:25, 107:1, 107:4, 107:17, 107:20, 107:23, 107:25, 108:1, 108:4, 108:17, 108:20, 108:23, 108:25, 109:1, 109:4, 109:17, 109:20, 109:23, 109:25, 110:1, 110:4, 110:17, 110:20, 110:23, 110:25, 111:1, 111:4, 111:17, 111:20, 111:23, 111:25, 112:1, 112:4, 112:17, 112:20, 112:23, 112:25, 113:1, 113:4, 113:17, 113:20, 113:23, 113:25, 114:1, 114:4, 114:17, 114:20, 114:23, 114:25, 115:1, 115:4, 115:17, 115:20, 115:23, 115:25, 116:1, 116:4, 116:17, 116:20, 116:23, 116:25, 117:1, 117:4, 117:17, 117:20, 117:23, 117:25, 118:1, 118:4, 118:17, 118:20, 118:23, 118:25, 119:1, 119:4, 119:17, 119:20, 119:23, 119:25, 120:1, 120:4, 120:17, 120:20, 120:23, 120:25, 121:1, 121:4, 121:17, 121:20, 121:23, 121:25, 122:1, 122:4, 122:17, 122:20, 122:23, 122:25, 123:1, 123:4, 123:17, 123:20, 123:23, 123:25, 124:1, 124:4, 124:17, 124:20, 124:23, 124:25, 125:1, 125:4, 125:17, 125:20, 125:23, 125:25, 126:1, 126:4, 126:17, 126:20, 126:23, 126:25, 127:1, 127:4, 127:17, 127:20, 127:23, 127:25, 128:1, 128:4, 128:17, 128:20, 128:23, 128:25, 129:1, 129:4, 129:17, 129:20, 129:23, 129:25, 130:1, 130:4, 130:17, 130:20, 130:23, 130:25, 131:1, 131:4, 131:17, 131:20, 131:23, 131:25, 132:1, 132:4, 132:17, 132:20, 132:23, 132:25, 133:1, 133:4, 133:17, 133:20, 133:23, 133:25, 134:1, 134:4, 134:17, 134:20, 134:23, 134:25, 135:1, 135:4, 135:17, 135:20, 135:23, 135:25, 136:1, 136:4, 136:17, 136:20, 136:23, 136:25, 137:1, 137:4, 137:17, 137:20, 137:23, 137:25, 138:1, 138:4, 138:17, 138:20, 138:23, 138:25, 139:1, 139:4, 139:17, 139:20, 139:23, 139:25, 140:1, 140:4, 140:17, 140:20, 140:23, 140:25, 141:1, 141:4, 141:17, 141:20, 141:23, 141:25, 142:1, 142:4, 142:17, 142:20, 142:23, 142:25, 143:1, 143:4, 143:17, 143:20, 143:23, 143:25, 144:1, 144:4, 144:17, 144:20, 144:23, 144:25, 145:1, 145:4, 145:17, 145:20, 145:23, 145:25, 146:1, 146:4, 146:17, 146:20, 146:23, 146:25, 147:1, 147:4, 147:17, 147:20, 147:23, 147:25, 148:1, 148:4, 148:17, 148:20, 148:23, 148:25, 149:1, 149:4, 149:17, 149:20, 149:23, 149:25, 150:1, 150:4, 150:17, 150:20, 150:23, 150:25, 151:1, 151:4, 151:17, 151:20, 151:23, 151:25, 152:1, 152:4, 152:17, 152:20, 152:23, 152:25, 153:1, 153:4, 153:17, 153:20, 153:23, 153:25, 154:1, 154:4, 154:17, 154:20, 154:23, 154:25, 155:1, 155:4, 155:17, 155:20, 155:23, 155:25, 156:1, 156:4, 156:17, 156:20, 156:23, 156:25, 157:1, 157:4, 157:17, 157:20, 157:23, 157:25, 158:1, 158:4, 158:17, 158:20, 158:23, 158:25, 159:1, 159:4, 159:17, 159:20, 159:23, 159:25, 160:1, 160:4, 160:1

185:21	61:12, 62:1, 62:13, 63:16, 66:2, 66:3, 66:6, 66:12, 70:18, 112:21, 113:22, 128:24, 129:8, 129:11, 129:14, 132:10, 133:2, 133:4, 133:12, 135:8, 136:2, 136:6, 136:14, 139:4, 139:7, 139:23, 142:18, 145:5, 145:16, 146:22, 146:24, 156:16, 156:17, 159:11, 159:19, 159:22, 161:10, 161:13, 161:14, 174:5, 178:9, 178:17, 178:21, 178:23, 178:24, 178:25, 179:16, 227:4, 227:16, 227:17, 227:18, 227:20, 228:3, 228:4, 231:16	51:13, 51:20, 53:15, 53:17, 54:5, 59:23, 74:3, 78:19, 78:25, 111:21, 131:19, 137:5, 191:3 probabilities [10] - 51:14, 56:11, 111:4, 214:10, 221:11, 221:18, 230:11, 230:12, 231:17, 247:1 probability [23] - 55:13, 60:11, 62:24, 166:24, 167:3, 167:19, 167:20, 207:21, 208:10, 211:4, 211:20, 213:21, 213:22, 213:23, 216:6, 218:11, 221:19, 231:24, 232:1, 239:18, 245:8, 246:13 problem [20] - 79:11, 81:6, 82:3, 82:4, 121:17, 124:25, prices [51] - 19:1, 41:24, 57:11, 60:19, 60:20, 60:21, 60:22, 60:23, 60:25, 61:4, 61:15, 61:21, 62:7, 63:14, 78:17, 78:21, 79:1, 129:18, 139:6, 142:24, 147:1, 155:24, 156:16, 156:19, 179:20, 179:24, 180:1, 180:5, 180:7, 180:13, 180:18, 180:19, 215:12, 228:2, 228:13, 229:4, 230:17, 230:18, 230:20, 230:25, 231:1, 231:5, 231:16, 231:18, 231:22, 232:9, 248:22 pricing [3] - 61:24, 233:22, 234:1 primarily [2] - 204:16, 218:8 principal [1] - 34:24 principle [2] - 217:11, 253:15 principles [2] - 198:22, 202:8 printout [1] - 21:23 private [1] - 199:11 probabilistic [16] - 51:2, 51:3, 51:4,	245:9 processes [2] - 22:10, 25:10 produce [2] - 19:21, 48:23 produced [11] - 21:2, 58:19, 135:3, 136:2, 136:12, 136:13, 137:7, 137:20, 180:20, 247:10, 247:12 producers [4] - 114:14, 114:18, 116:20, 195:24 produces [2] - 21:13, 44:21 producing [1] - 124:15 product [60] - 12:3, 16:24, 17:6, 17:11, 20:9, 21:6, 21:14, 22:8, 22:18, 25:2, 26:4, 32:18, 33:11, 47:11, 48:1, 48:2, 53:8, 58:8, 58:11, 63:13, 65:20, 65:21, 68:8, 76:14, 77:1, 87:1, 87:3, 103:9, 104:11, 106:16, 106:19, 106:22, 107:2, 116:6, 117:17, 174:6, 190:22, 193:24, 194:3, 194:8, 194:11, 194:19, 212:16, 215:24, 215:25, 223:5, 224:11, 229:14, 229:21, 231:3, 231:7, 232:17, 232:18, 233:2, 233:4, 236:25, 239:24, 252:1 production [5] - 72:24, 125:5, 125:22, 176:18, 247:15 products [15] - 16:22, 20:23, 21:1, 41:10, 56:6, 61:13, 87:4, 87:11, 87:13, 98:4, 177:22, 236:8, 236:9, 251:10 profession [2] - 37:4, 46:5 professional [14] - 13:22, 14:1, 23:1, 40:3, 62:5, 75:10, 80:20, 80:21, 189:9, 201:12, 227:3,	227:6, 227:9, 240:16 profit [13] - 34:2, 34:4, 34:13, 73:20, 85:5, 104:11, 117:3, 127:22, 130:14, 131:16, 138:8, 149:15, 149:23 profitable [1] - 39:19 profits [62] - 10:1, 10:2, 10:5, 10:8, 10:11, 10:15, 10:16, 11:19, 15:3, 15:10, 15:14, 15:18, 16:7, 18:8, 34:17, 35:25, 36:19, 43:16, 45:8, 45:10, 45:15, 45:18, 49:8, 49:16, 51:19, 70:24, 72:7, 75:25, 77:1, 96:19, 97:1, 97:6, 104:4, 105:11, 126:18, 127:5, 127:13, 127:18, 127:24, 128:16, 128:25, 130:4, 132:7, 134:12, 144:24, 149:15, 149:19, 150:2, 150:6, 153:6, 154:3, 182:9, 182:23, 183:4, 183:7, 183:8, 183:24, 197:15, 232:21, 247:25, 249:24 program [11] - 27:2, 63:8, 107:22, 155:15, 182:7, 199:6, 202:8, 203:8, 215:22, 215:23 programmed [1] - 155:20 programs [1] - 189:14 project [6] - 13:10, 15:11, 109:9, 109:14, 165:17, 244:20 Project [1] - 53:21 projected [1] - 46:12 projecting [1] - 46:15 projection [23] - 15:7, 15:10, 15:24, 16:1, 16:2, 16:8, 16:12, 17:21, 18:3, 50:22, 84:20, 84:22, 107:17, 110:7, 110:11, 110:14, 110:17, 110:25, 111:19, 111:20, 111:23, 111:25, 112:3 projections [3] -
--------	---	--	---	---

<p>16:13, 32:4, 46:11 projects [1] - 56:5 promotional [1] - 87:13 proper [5] - 41:17, 41:18, 45:9, 189:1 properly [2] - 215:22, 215:23 properties [2] - 243:16, 246:11 proposition [1] - 51:14 propositions [1] - 51:15 prorated [1] - 27:11 prospective [1] - 19:25 prospects [4] - 165:16, 165:18, 165:23, 166:6 protocol [1] - 207:6 provide [4] - 8:1, 21:5, 127:18, 198:11 provided [11] - 24:9, 24:13, 25:1, 25:4, 130:24, 131:17, 131:18, 131:20, 141:25, 189:12, 210:3 provider [1] - 213:5 provides [1] - 204:11 Public [1] - 220:3 publicly [5] - 37:17, 37:19, 38:9, 38:13, 38:21 pulled [4] - 29:24, 30:11, 41:16, 242:4 pump [1] - 102:16 purchase [11] - 14:4, 17:17, 41:3, 47:14, 76:23, 108:15, 116:5, 116:20, 155:25, 171:7, 172:14 purchased [5] - 114:6, 170:12, 170:13, 175:13, 223:13 purchases [1] - 170:19 purchasing [15] - 97:12, 97:23, 98:3, 99:8, 99:19, 100:7, 100:19, 101:6, 101:7, 101:9, 101:11, 159:10, 159:18, 168:18, 172:8 purpose [9] - 18:18, 79:7, 150:13, 204:20, 229:18,</p>	<p>229:20, 239:9, 241:14, 246:22 purposes [11] - 10:2, 18:24, 61:15, 66:16, 73:20, 181:25, 183:14, 224:18, 224:20, 243:24, 246:24 Pursuant [1] - 1:15 push [1] - 103:9 put [23] - 3:17, 10:20, 27:23, 29:1, 40:8, 40:24, 41:21, 50:13, 82:7, 96:4, 102:17, 109:23, 156:3, 156:16, 160:13, 165:19, 208:19, 221:19, 224:16, 225:8, 233:3, 241:24, 245:10 puts [2] - 61:19, 87:2 putting [7] - 79:21, 94:16, 148:12, 217:19, 223:25, 244:11, 244:12</p>	<p>191:23, 201:13, 221:1, 222:22, 238:11, 259:24 quiz [1] - 68:14 quote [3] - 161:11, 161:19, 161:20 quoted [7] - 57:11, 60:21, 61:4, 61:10, 178:25, 227:18</p>	<p>63:12, 64:25, 65:13, 65:25, 66:8, 66:10, 67:6, 68:13, 68:15, 69:1, 74:6, 74:8, 75:21, 75:22, 76:3, 76:4, 128:21, 149:18, 193:5, 193:6, 210:6, 210:12, 237:6 R</p>	<p>raise [7] - 3:19, 9:8, 19:20, 78:17, 129:8, 198:2, 254:13 raised [3] - 44:8, 79:1, 149:21 raising [3] - 19:14, 44:6, 78:21 ramp [3] - 13:8, 214:2, 214:3 ramped [2] - 27:1, 29:17 ran [14] - 55:14, 63:6, 69:23, 129:9, 145:13, 167:18, 199:6, 206:8, 207:5, 209:9, 216:21, 253:7, 253:25 Rancourt's [2] - 95:7, 95:8 random [15] - 63:23, 63:25, 64:4, 64:5, 64:7, 64:17, 65:1, 65:18, 107:18, 165:12, 167:6, 167:7, 183:21, 184:1 ranges [18] - 8:3, 39:15, 39:16, 55:10, 55:11, 55:12, 179:16, 184:6, 184:8, 184:9, 184:12, 203:2, 203:6, 210:15, 216:14, 228:22, 228:24, 251:14 ranges [5] - 203:13, 203:14, 203:16, 203:24, 251:13 ratably [1] - 34:17 rate [59] - 14:7, 34:15, 34:21, 34:22, 34:25, 35:12, 35:21, 35:23, 35:24, 36:12, 36:15, 36:16, 36:22, 37:9, 37:11, 39:13, 40:17, 42:25, 43:8, 43:9, 43:10, 43:15, 44:8, 44:13, 44:14, 44:15, 45:1, 45:3, 46:16, 47:1, 49:23, 63:11,</p>	<p>realize [8] - 52:6, 52:7, 52:24, 67:18, 67:22, 174:6, 229:19, 257:23 realized [1] - 153:4 really [46] - 5:2, 13:8, 27:1, 29:9, 46:14, 49:1, 56:1, 148:20, 169:23, 173:3, 173:24, 174:5, 178:12, 179:1, 198:25, 200:25, 201:1, 202:21, 207:6, 209:2, 211:14, 211:17, 212:20, 215:7, 216:15, 222:3, 222:10, 225:15, 228:13, 228:15, 233:4, 235:4, 236:14, 236:16, 239:8, 239:19, 240:3, 241:6, 242:8, 244:2, 244:23, 256:13, 258:12, 259:1, 259:24, 260:9 reams [1] - 227:14 reason [21] - 4:1, 4:15, 39:16, 49:1, 74:9, 77:23, 97:23, 99:8, 99:19, 112:17, 114:2, 128:23, 128:24, 162:16, 162:17, 173:2, 202:8, 208:14, 217:7, 245:7, 252:22 reasonable [19] - 50:3, 50:5, 66:22, 67:3, 70:2, 75:8, 76:5, 107:5, 127:4, 127:8, 127:12, 130:20, 168:6, 170:5, 170:7, 235:12, 238:7, 246:24, 250:25 reasonably [30] - 28:3, 127:19, 130:7, 130:9, 130:17, 131:9, 131:13, 132:19, 134:11, 134:20, 136:24, 137:3, 137:8, 138:7, 138:12, 138:22, 138:23, 139:2, 139:17, 139:20, 139:22, 140:1, 140:12, 140:14, 140:15, 140:17, 140:18, 143:12, 144:24, 145:2 reasons [6] - 13:4,</p>
---	--	---	--	---	--

45:4, 77:13, 184:3, 203:18, 203:22 rebuttal [2] - 224:17, 258:3 recalculated [1] - 85:23 receivable [1] - 42:15 receive [2] - 184:11, 202:15 received [1] - 189:22 receiving [1] - 153:7 recent [4] - 38:3, 42:3, 199:19, 230:20 recess [2] - 70:8, 197:1 Recess [3] - 70:11, 149:8, 197:3 reclaimed [1] - 52:16 reclamation [2] - 52:12, 77:10 recognize [3] - 94:10, 240:15, 248:3 recognized [1] - 23:1 recomputed [1] - 41:17 reconcile [1] - 24:7 reconciling [1] - 12:7 record [10] - 9:14, 51:25, 75:12, 128:11, 141:1, 218:19, 218:22, 219:2, 234:7, 260:19 records [6] - 14:25, 24:5, 166:9, 220:7, 220:9, 220:10 recover [2] - 71:20, 74:19 recovered [1] - 72:10 recovery [3] - 100:15, 100:16, 100:17 recreate [1] - 224:10 RECROSS [1] - 195:1 Recross [1] - 2:1 recycling [1] - 52:12 red [1] - 136:17 redesign [1] - 212:16 redirect [3] - 148:6, 188:1, 188:16 Redirect [1] - 2:1 REDIRECT [1] - 188:17 redo [1] - 75:4 reduced [1] - 224:7 reduces [1] - 209:22 reducing [3] - 37:25, 47:3, 49:22 reduction [2] - 13:21, 25:10 refer [1] - 248:17 references [3] - 83:14,	98:9, 98:17 referred [10] - 33:19, 37:2, 38:5, 40:11, 59:4, 59:11, 84:20, 221:16, 241:4, 247:19 referring [14] - 50:10, 102:12, 114:25, 134:13, 221:14, 221:17, 221:23, 234:15, 235:3, 238:12, 240:5, 240:6, 240:18, 250:22 refined [2] - 50:15, 102:15 refineries [188] - 10:17, 13:20, 23:24, 31:22, 50:6, 50:9, 50:12, 50:13, 50:18, 50:21, 51:21, 51:23, 51:24, 52:1, 52:2, 52:9, 52:22, 53:3, 53:10, 53:12, 53:14, 57:9, 58:5, 58:10, 58:16, 58:22, 61:6, 61:19, 62:12, 63:15, 66:15, 66:21, 67:11, 67:19, 68:1, 68:5, 68:10, 68:16, 69:13, 69:15, 69:20, 69:25, 70:3, 70:4, 71:3, 71:7, 73:14, 73:17, 74:1, 74:4, 74:13, 75:19, 75:24, 76:7, 76:12, 86:2, 96:19, 97:12, 97:23, 98:3, 98:5, 98:23, 99:4, 99:7, 99:11, 99:13, 99:15, 99:16, 99:18, 99:24, 100:9, 100:19, 101:6, 104:22, 105:4, 105:11, 114:7, 114:10, 115:4, 115:11, 144:19, 148:2, 148:3, 152:5, 152:9, 152:18, 154:4, 155:7, 155:8, 157:5, 157:9, 157:11, 157:13, 158:6, 158:9, 158:12, 158:19, 159:9, 159:12, 160:22, 161:21, 161:23, 161:24, 162:2, 162:11, 162:14, 162:19, 162:21, 163:10, 163:17, 163:20, 164:5, 164:10,	164:14, 164:17, 164:19, 164:22, 164:24, 165:2, 165:10, 165:11, 165:13, 165:14, 165:15, 166:4, 166:19, 167:24, 168:7, 168:9, 168:11, 168:14, 168:22, 168:24, 170:14, 170:22, 172:5, 173:1, 173:11, 173:13, 173:12, 173:13, 173:14, 173:15, 173:15, 173:21, 173:22, 175:13, 177:9, 177:20, 185:18, 186:8, 210:22, 210:23, 211:11, 241:10, 251:5 refining [3] - 14:23, 50:14, 176:9	reflect [4] - 36:12, 124:18, 212:24, 243:5 reflected [3] - 28:20, 249:1, 249:14 reflecting [1] - 25:9 reflection [1] - 224:21 refresh [1] - 221:13 regard [2] - 3:23, 228:2 regarding [8] - 11:3, 78:25, 92:7, 99:4, 145:16, 155:7, 155:8, 200:14 regardless [1] - 33:7 regenerates [1] - 209:9 regimen [1] - 217:22 regression [10] - 32:1, 32:2, 32:7, 33:19, 216:21, 216:22, 217:1, 240:13, 240:20 reject [1] - 207:1 rejected [1] - 83:20 relate [3] - 127:25, 175:14, 205:10 related [6] - 86:2, 98:14, 130:14, 133:18, 176:2, 185:8 relates [1] - 192:11 relating [2] - 49:16, 76:7 relation [1] - 189:24 relationship [15] - 18:9, 32:21, 45:5, 45:7, 45:12, 45:25, 108:4, 108:18, 109:3, 109:5, 109:8, 114:12, 126:10, 223:10, 245:13 relative [1] - 42:2 relayed [1] - 108:21 relevant [8] - 41:12, 58:6, 58:14, 59:5, 157:18, 157:25, 224:7, 243:14 reliability [4] - 204:4, 245:16, 258:13, 258:14 reliable [10] - 158:2, 203:17, 203:20, 206:16, 218:7, 244:10, 245:1, 245:2, 259:4 relied [12] - 16:15, 16:16, 20:1, 21:9, 97:8, 97:11, 97:14, 115:22, 116:25, 117:4, 180:16	rely [10] - 16:13, 47:20, 47:23, 208:7, 208:8, 234:22, 234:25, 235:13, 235:17, 251:1 remain [2] - 48:25, 196:21 remaining [1] - 64:21 remarks [1] - 98:9 remember [13] - 44:10, 84:3, 95:5, 107:23, 113:10, 152:2, 154:12, 155:1, 159:15, 183:21, 187:17, 193:13, 240:19 remembers [1] - 81:14 reminded [1] - 5:17 remote [1] - 103:9 remove [2] - 27:10, 50:14 removing [1] - 134:22 render [3] - 85:13, 91:9, 127:13 rendered [3] - 91:7, 94:19, 95:25 rendering [1] - 85:15 renewals [1] - 216:12 rent [1] - 32:22 rented [2] - 160:20, 163:21 rents [1] - 69:8 repeat [2] - 25:20, 164:12 repeating [1] - 242:10 rephrase [3] - 164:13, 173:16, 229:18 replace [1] - 52:14 report [27] - 13:24, 47:20, 52:4, 69:5, 76:18, 103:18, 112:23, 112:24, 163:7, 164:21, 200:11, 200:18, 200:20, 203:25, 206:19, 215:1, 217:15, 218:19, 218:24, 240:5, 248:17, 250:23, 250:24, 251:4, 252:12, 252:15, 252:17 Reporter [3] - 1:23, 260:17, 260:23 reporter [1] - 257:16 reports [3] - 204:15, 218:18, 245:5 representation [2] - 97:14, 158:9 represented [1] -
--	--	--	---	--

113:11	157:23, 203:21,	35:24, 36:3, 37:11,	173:4, 173:16,	154:1, 154:9,
represents [3] - 34:3,	204:13, 217:9,	37:12, 37:22, 38:10,	173:20, 182:2,	154:11, 154:12,
43:4, 253:6	249:12	40:2, 128:21	202:13, 211:12,	154:17, 154:18,
request [1] - 143:6	resulted [1] - 84:22	Risk [1] - 54:2	211:13, 211:21,	154:21, 154:23,
requested [3] -	resulting [2] - 15:3,	risks [6] - 35:8, 35:23,	241:5, 252:18	155:3, 155:4,
133:15, 142:16,	18:8	35:25, 36:2, 75:23,	sales [238] - 10:4,	155:11, 155:13,
142:22	results [5] - 168:6,	76:1	10:17, 12:7, 12:11,	155:23, 156:6,
require [1] - 108:14	170:8, 233:17,	road [2] - 222:5,	13:8, 13:19, 14:25,	156:17, 157:8,
requirements [2] -	240:14, 244:10	224:14	15:4, 15:7, 15:10,	158:8, 165:15,
202:13, 216:12	retained [1] - 212:22	rolled [1] - 215:2	15:11, 15:14, 15:18,	165:17, 166:16,
requires [1] - 177:1	retirement [2] - 35:6,	rolling [1] - 211:23	15:24, 16:1, 16:2,	168:21, 169:14,
rerun [1] - 99:11	220:14	room [1] - 13:9	16:7, 16:8, 16:12,	173:10, 173:13,
rescheduling [1] -	return [4] - 37:16,	rope [1] - 24:21	16:14, 16:15, 16:17,	173:17, 173:21,
254:24	70:16, 121:21,	rose [1] - 199:4	17:7, 17:8, 17:12,	173:25, 174:1,
research [9] - 12:13,	129:25	rosy [1] - 236:16	17:16, 17:21, 18:3,	175:6, 175:19,
92:25, 93:2, 93:4,	returned [1] - 52:11	roughly [1] - 8:18	18:14, 18:16, 18:19,	175:20, 179:3,
93:5, 93:7, 93:9,	returns [4] - 11:23,	RTC [1] - 199:22	18:21, 19:5, 19:12,	179:6, 179:13,
176:18, 200:6	37:13, 41:7, 87:19	rule [3] - 46:5, 127:2,	20:14, 20:19, 20:23,	179:16, 179:19,
reserve [1] - 145:14	revenue [24] - 40:25,	258:2	27:1, 29:17, 31:21,	180:25, 181:2,
reserving [1] - 145:18	41:25, 42:2, 43:23,	run [42] - 8:8, 55:17,	31:22, 31:25, 32:15,	181:8, 181:11,
resid [16] - 163:23,	49:14, 77:3, 141:13,	59:20, 64:6, 78:19,	32:22, 32:23, 33:16,	181:17, 181:18,
163:24, 164:1,	141:16, 182:11,	93:18, 93:22,	33:18, 33:23, 33:25,	181:21, 181:23,
164:3, 164:5,	182:16, 182:19,	133:15, 142:17,	34:5, 38:14, 39:18,	182:3, 182:5,
164:10, 164:11,	182:22, 182:23,	142:23, 143:1,	41:14, 41:15, 42:5,	183:14, 183:16,
164:15, 164:16,	183:2, 184:7, 184:8,	143:2, 182:4,	42:6, 43:12, 43:14,	185:2, 185:19,
164:20, 164:23,	184:9, 184:10,	183:18, 183:19,	43:15, 47:7, 47:14,	185:21, 185:25,
165:2, 165:7, 165:9,	184:20, 184:25,	184:3, 184:4,	47:16, 47:18, 48:4,	186:3, 187:18,
175:3	185:8, 186:5, 186:11	201:12, 201:16,	48:6, 49:5, 49:17,	187:19, 187:21,
residential [1] -	revenues [10] - 48:13,	202:9, 205:21,	50:22, 51:7, 53:10,	190:10, 190:14,
199:20	48:17, 49:10, 74:4,	205:23, 205:25,	61:15, 62:7, 66:17,	190:16, 191:5,
residual [1] - 165:14	74:9, 141:6, 215:12,	206:5, 206:11,	67:18, 67:22, 67:23,	191:8, 191:9,
residue [1] - 160:17	248:18, 248:22,	206:13, 209:12,	67:24, 68:23, 70:20,	191:12, 193:11,
resistance [1] -	249:13	214:7, 231:19,	70:21, 70:24, 70:25,	193:21, 193:23,
179:23	review [12] - 11:21,	234:12, 234:14,	71:1, 71:2, 71:8,	194:10, 195:16,
Resolution [1] -	13:22, 40:6, 86:13,	234:16, 234:19,	71:12, 71:14, 71:16,	195:21, 211:3,
199:13	86:16, 190:3, 191:5,	235:1, 238:12,	71:21, 71:23, 71:24,	222:25, 223:1,
resolved [3] - 83:22,	191:8, 218:22,	240:20, 246:19,	72:1, 72:3, 73:16,	223:9, 223:11,
145:6, 258:1	233:13, 250:23,	247:16, 252:4,	73:17, 74:22, 75:13,	223:16, 223:20,
resources [2] - 13:22,	251:23	253:11, 253:21,	75:15, 75:18, 75:24,	223:23, 224:6,
214:5	reviewed [7] - 82:21,	254:1	76:12, 76:20, 76:21,	224:18, 224:19,
respect [6] - 24:16,	82:23, 86:13, 86:15,	running [12] - 93:19,	76:22, 98:6, 105:14,	232:9, 236:8, 241:9,
72:11, 75:20, 76:19,	122:20, 177:8,	201:13, 203:18,	105:16, 105:23,	241:14, 241:22,
78:16, 239:7	250:10	208:15, 209:8,	107:21, 107:22,	246:15, 252:24,
respond [1] - 11:14	reviewing [3] - 83:9,	233:20, 234:9,	107:25, 110:7,	252:25
response [2] - 98:4,	86:8, 86:17	238:15, 238:18,	110:11, 110:14,	Sales [2] - 2:5, 2:12
133:19	rewriting [2] - 222:20,	245:7, 246:22, 253:5	110:16, 110:25,	sample [6] - 63:7,
responsible [6] -	223:3	S	111:19, 111:20,	158:3, 164:6,
113:17, 160:10,	Rhode [2] - 256:1,		111:23, 111:25,	165:12, 207:4, 210:7
160:22, 160:24,	257:19		112:2, 114:10,	samples [1] - 199:15
160:25, 161:1	right-hand [3] - 67:14,		114:19, 115:8,	sat [4] - 27:20, 27:23,
rest [1] - 12:6	67:21, 70:18		115:16, 115:19,	52:23, 60:6
restored [1] - 71:21	right-handed [2] -		117:4, 117:7, 117:8,	satisfied [1] - 63:1
restrict [2] - 228:22,	4:18, 4:19		118:13, 118:22,	satisfy [1] - 17:5
231:15	rigorous [1] - 207:5		141:8, 141:10,	save [2] - 116:1,
restricted [1] - 228:25	ripled [1] - 42:10		141:11, 141:20,	212:20
restricting [1] - 228:24	rising [1] - 215:12		150:1, 150:6,	saving [2] - 48:4,
restrictions [1] - 229:1	risk [20] - 34:15,		150:15, 150:17,	69:19
result [12] - 54:23,	34:20, 34:21, 34:22,		151:17, 152:4,	savings [11] - 52:6,
75:25, 76:13, 84:19,	34:25, 35:2, 35:3,		152:9, 152:18,	52:8, 52:20, 52:24,
156:18, 156:24,	35:4, 35:12, 35:21,		152:24, 153:13,	59:2, 69:14, 69:21,
			153:18, 153:20,	

159:13, 161:7, 161:23, 174:7 saw [8] - 76:17, 96:9, 125:13, 191:11, 192:24, 195:15, 195:22, 232:21 scale [2] - 40:1, 201:14 scenario [3] - 7:25, 68:3, 230:14 scenarios [5] - 62:7, 133:20, 191:22, 191:25, 225:19 schedule [3] - 148:5, 170:23, 255:3 schedules [5] - 85:17, 85:19, 152:16, 168:3, 170:24 scheduling [3] - 8:24, 257:1, 257:11 scientific [2] - 258:12, 258:14 scientifically [4] - 226:1, 226:7, 259:5, 259:17 scientists [1] - 258:15 screw [1] - 17:2 screws [1] - 21:21 searched [1] - 87:19 seat [1] - 183:20 seated [2] - 9:13, 198:7 second [19] - 15:12, 28:13, 29:2, 29:5, 31:9, 31:14, 44:19, 50:6, 81:10, 111:18, 155:7, 181:22, 191:17, 202:3, 204:7, 204:14, 212:17, 228:5, 235:16 secondly [2] - 5:3, 5:19 section [3] - 29:19, 33:15, 126:22 sector [1] - 199:11 securitization [2] - 199:21, 202:13 securitizations [1] - 201:15 Security [1] - 35:6 see [50] - 4:5, 29:20, 33:21, 35:5, 41:8, 43:12, 52:25, 57:25, 64:2, 65:22, 70:19, 72:14, 74:23, 74:25, 76:20, 86:25, 95:11, 95:13, 98:10, 109:23, 122:16, 128:9, 134:3,	142:18, 149:3, 158:15, 166:6, 170:19, 170:20, 177:13, 180:14, 182:15, 191:8, 192:9, 197:10, 207:6, 213:14, 213:15, 218:3, 218:4, 218:5, 226:13, 236:13, 242:2, 248:15, 254:6, 256:3, 256:13, 260:8, 260:12 seeing [1] - 100:15 seeking [1] - 238:1 seem [2] - 150:4, 152:2 sees [1] - 169:12 selected [4] - 26:24, 27:3, 66:2, 221:20 selection [3] - 165:13, 204:16, 228:4 self [3] - 80:24, 81:4, 81:12 self-education [2] - 81:4, 81:12 self-taught [1] - 80:24 sell [11] - 61:13, 116:13, 158:10, 159:16, 166:21, 171:17, 173:15, 173:21, 181:1, 233:13, 247:4 selling [32] - 12:9, 19:1, 19:4, 25:2, 28:3, 29:3, 29:22, 41:24, 47:10, 51:23, 51:24, 58:10, 61:5, 66:20, 66:23, 67:3, 68:6, 69:1, 69:2, 88:9, 107:23, 115:21, 133:12, 166:24, 167:3, 167:22, 171:23, 178:22, 187:18, 187:20, 236:22, 237:1 sells [4] - 63:14, 157:6, 232:14, 232:16 seminars [1] - 56:20 Senate [1] - 171:1 send [4] - 52:15, 52:16, 68:4, 142:18 sending [1] - 142:22 sense [16] - 7:24, 11:10, 147:9, 207:10, 207:13, 207:20, 213:19,	216:13, 216:15, 218:5, 218:12, 247:2, 249:10, 258:7, 259:9 senses [1] - 212:19 sensitive [1] - 209:5 sensitivity [3] - 209:4, 235:14, 236:15 sent [3] - 17:3, 83:21, 190:20 separate [1] - 258:9 separately [1] - 10:18 September [4] - 17:8, 48:22, 137:21, 142:21 series [1] - 41:3 service [2] - 108:24, 221:21 services [1] - 87:13 set [30] - 11:8, 21:4, 41:19, 54:14, 54:17, 54:18, 54:19, 65:14, 94:17, 103:14, 122:2, 134:24, 156:6, 158:24, 160:2, 172:3, 173:7, 201:8, 201:15, 202:3, 202:4, 207:21, 231:25, 233:7, 233:8, 235:13, 239:25 sets [2] - 64:18, 159:15 seven [3] - 35:7, 143:12, 144:16 several [1] - 191:14 severe [1] - 229:24 sew [4] - 23:15, 87:14, 87:20, 87:21 sewn [2] - 87:3, 87:4 shakeout [1] - 235:19 shape [2] - 206:23, 208:25 share [6] - 15:20, 16:5, 172:15, 173:12, 252:19, 252:23 shareholder [1] - 36:19 shareholders [1] - 40:19 sheet [16] - 25:6, 25:7, 25:9, 25:21, 28:10, 90:8, 90:12, 90:16, 90:17, 94:8, 109:24, 124:10, 124:16, 161:11, 161:18, 203:12 sheets [10] - 22:13, 22:14, 23:19, 24:13,	24:17, 25:1, 89:11, 161:19, 161:20 Shell [1] - 14:21 shift [2] - 93:20, 93:22 shifts [2] - 93:18, 247:16 shipments [1] - 108:25 shock [3] - 36:8, 36:10, 39:24 shop [1] - 87:12 short [3] - 198:12, 213:16, 213:17 show [6] - 27:25, 28:5, 61:14, 66:4, 91:15, 210:1: 221:10, 114:17, 115:10, 129:17, 142:17, 142:23, 151:9, 152:5, 155:19, 157:21, 177:9, 179:17, 182:8, 188:23, 189:1, 189:14, 190:23, 190:25, 191:1, 201:16, 201:25, 202:6, 203:19, 204:11, 205:21, 205:23, 205:25, 206:11, 208:15, 208:22, 209:8, 209:9, 214:25, 215:1, 215:4, 215:5, 215:16, 215:22, 215:23, 218:10, 221:1, 221:10, 226:6, 226:21, 229:12, 229:16, 233:9, 234:10, 234:12, 234:16, 234:19, 235:1, 238:15, 238:18, 241:8, 241:21, 244:9, 245:7, 245:8, 246:8, 246:12, 246:14, 247:21, 247:24, 249:6, 251:6, 251:18, 251:20, 252:24, 253:5, 253:12, 253:21 Simulation [3] - 2:10, 2:10, 2:11 simulations [12] - 171:15, 199:16, 201:9, 201:12, 201:13, 202:9, 205:14, 205:16, 209:12, 222:9, 251:5, 253:7 single [3] - 118:7, 183:12, 194:13 sit [5] - 166:19, 186:18, 186:19,
--	---	--	---

205:17, 254:1	small [18] - 20:11, 20:19, 36:13, 37:23, 39:13, 105:1, 207:4, 220:16, 227:13, 232:15, 236:6, 236:11, 236:12, 236:20, 238:4, 238:8, 246:20	sorry [27] - 3:8, 10:12, 10:15, 78:10, 82:6, 110:22, 119:19, 120:1, 120:24, 121:22, 133:9, 138:11, 143:20, 151:7, 152:7, 152:16, 167:1, 186:25, 192:15, 210:13, 221:13, 227:5, 227:20, 237:2, 239:22, 249:18, 250:16	spreadsheet [3] - 22:7, 75:14, 195:20
sitting [1] - 251:19	smaller [3] - 36:9, 36:10, 245:22	sort [9] - 3:25, 8:7, 11:8, 189:3, 205:18, 220:19, 222:19, 249:8, 259:22	spreadsheets [2] - 142:6, 144:10
situated [1] - 52:10	smallest [5] - 37:19, 37:23, 38:8, 38:12, 38:20	sorts [8] - 13:2, 56:13, 57:3, 77:5, 92:7, 234:14, 237:23, 238:11	squared [1] - 211:18
situation [7] - 45:24, 46:7, 49:10, 75:8, 213:3, 231:19, 238:12	smartphones [1] - 77:17	sounds [1] - 259:4	squelched [1] - 245:11
situations [4] - 56:2, 56:13, 62:24, 220:2	smushed [2] - 210:20, 210:21	source [4] - 87:23, 179:5, 244:24, 249:4	stage [2] - 201:8, 217:23
six [70] - 12:8, 12:10, 12:11, 16:18, 16:19, 16:20, 17:10, 17:12, 17:14, 17:16, 18:12, 18:15, 18:19, 18:21, 18:22, 19:5, 25:14, 26:25, 27:14, 28:2, 28:20, 29:15, 29:16, 29:23, 31:18, 35:7, 45:6, 47:2, 47:10, 53:10, 54:12, 58:10, 78:3, 78:6, 78:8, 78:10, 83:10, 92:21, 101:22, 102:4, 102:6, 102:10, 103:10, 107:21, 107:22, 108:6, 118:12, 118:22, 150:16, 150:18, 150:20, 151:11, 154:19, 154:20, 154:22, 169:9, 185:25, 186:3, 187:17, 190:10, 207:4, 222:4, 222:23, 222:25, 224:14, 224:24, 235:19, 236:1, 247:23	space [1] - 13:6	stamp [2] - 169:13, 169:18	
six-month [7] - 12:10, 17:10, 26:25, 27:14, 29:16, 47:10, 190:10	sold [19] - 18:12, 23:2, 47:6, 57:7, 58:10, 59:14, 60:16, 62:14, 64:20, 64:21, 66:11, 70:17, 71:3, 71:6, 114:9, 129:2, 180:8, 230:20	speaking [1] - 149:13	stand [6] - 3:18, 7:18, 147:7, 196:16, 197:1, 254:9
six-months [1] - 118:12	sole [1] - 159:18	specialty [1] - 198:17	standard [28] - 14:14, 21:10, 22:12, 22:14, 22:25, 23:8, 23:10, 23:18, 24:9, 24:13, 25:1, 25:8, 25:20, 38:23, 39:1, 72:21, 73:5, 90:8, 90:12, 94:8, 117:20, 118:13, 118:14, 127:2, 127:5, 128:3, 227:17, 258:15
six-year [1] - 235:19	solely [3] - 115:22, 116:25, 181:25	specific [3] - 40:10, 75:23, 163:10	standards [2] - 23:4, 23:6
six-years [1] - 47:2	solemnly [2] - 9:9, 198:3	specifically [3] - 25:22, 111:9, 200:11	stands [3] - 29:22, 85:17, 86:21
size [3] - 37:22, 39:23, 164:6	solid [1] - 58:2	speculates [1] - 222:13	start [12] - 15:11, 24:18, 29:11, 36:21, 37:11, 115:21, 183:8, 211:6, 228:8, 241:10, 241:14, 241:22
skeptical [1] - 235:15	solving [3] - 81:6, 82:3, 82:4	speculating [1] - 250:5	started [7] - 16:25, 18:10, 29:14, 65:10, 199:3, 200:1, 237:10
skewed [1] - 239:14	someone [5] - 3:23, 91:14, 91:19, 110:19, 131:14	speed [1] - 108:24	starting [3] - 17:8, 53:23, 108:22
skip [2] - 72:13, 111:5	something's [1] - 151:14	spell [1] - 9:14	startling [1] - 251:15
skipped [1] - 6:24	sometime [3] - 16:23, 153:21, 222:4	spend [2] - 10:22, 226:3	starts [4] - 70:24, 105:18, 239:4, 257:4
sliding [1] - 5:15	sometimes [10] - 5:4, 82:7, 244:4, 244:5, 244:14, 244:23, 253:8, 253:9	spent [27] - 12:1, 12:4, 12:6, 12:8, 14:16, 23:13, 23:25, 52:15, 88:8, 88:10, 88:16, 88:25, 89:22, 91:25, 104:24, 114:7, 114:9, 159:18, 160:13, 163:4,	state [2] - 9:13, 210:16
slight [1] - 91:23	somewhere [8] - 38:8, 39:10, 39:14, 51:9, 64:11, 125:24, 146:13, 146:20	spins [6] - 155:21, 156:4, 156:11, 156:21, 167:7, 183:25	statement [5] - 30:5, 121:21, 214:22, 226:5, 233:11
slightly [1] - 69:2	son [1] - 3:22	spin [1] - 64:18	statements [12] - 11:22, 11:24, 26:22, 27:15, 28:11, 29:21, 29:25, 40:7, 42:24, 129:25, 214:15, 227:19
sling [1] - 5:8	sooner [2] - 171:4, 255:7	spins [6] - 155:21, 156:4, 156:11, 156:21, 167:7, 183:25	STATES [1] - 1:1
slope [3] - 33:24, 217:1, 240:14	sophisticated [1] - 223:17	spit [1] - 208:23	States [6] - 1:16, 1:17, 35:15, 210:6, 210:17, 260:18
slow [1] - 5:3		spoken [2] - 98:2, 100:18	statistic [1] - 198:20
slower [1] - 22:21		Spreadsheet [5] - 2:5, 2:7, 2:11, 2:12, 2:13	statistical [20] - 113:19, 113:24,
Small [1] - 236:12			129:21, 155:17, 157:21, 157:22, 157:25, 199:6, 200:12, 202:7, 207:11, 217:11, 222:8, 223:18, 234:14, 235:2, 237:13, 237:24, 240:17, 243:15

<p>236:20, 237:1, 250:22, 251:11, 251:15, 258:16 stitching [2] - 41:8, 87:12 stochastic [11] - 51:4, 111:11, 111:14, 111:17, 111:21, 111:24, 112:3, 113:20, 114:4, 131:4, 134:5 stock [7] - 37:13, 37:15, 41:15, 42:5, 42:18, 141:8, 141:10 stocks [4] - 37:17, 37:19, 38:9, 38:13 stop [5] - 77:6, 77:14, 108:9, 176:7, 202:19 stopped [4] - 77:7, 106:18, 175:14, 175:17 stopping [2] - 35:6, 35:7 stops [1] - 167:7 stopwatch [2] - 23:15, 23:17 straightened [1] - 109:1 straightforward [2] - 202:22, 257:9 straps [1] - 24:22 stream [6] - 35:1, 126:25, 163:21, 163:25, 164:2, 165:15 Street [1] - 1:17 streets [1] - 207:16 strike [1] - 167:1 strikes [1] - 55:17 strive [1] - 127:14 strong [1] - 247:13 structure [1] - 43:4 studies [4] - 159:9, 210:5, 213:25, 214:1 study [8] - 38:1, 38:4, 210:8, 212:3, 214:17, 214:18, 214:19, 233:16 stuff [5] - 107:1, 109:15, 151:3, 152:10, 238:19 Sub [1] - 2:18 subdivisions [1] - 121:2 subject [3] - 15:17, 46:23, 76:1 submissions [1] - 137:11 subsequent [1] - 229:2</p>	<p>subsequently [1] - 151:16 subsidiary [1] - 28:24 substantial [2] - 65:9, 90:18 substituted [1] - 6:8 subtract [3] - 42:16, 71:1 subtracted [1] - 43:8 subtracting [3] - 34:5, 71:25, 73:1 success [16] - 63:11, 63:12, 64:25, 65:8, 65:13, 65:25, 66:8, 66:10, 67:6, 68:13, 68:15, 68:25, 168:5, 169:2, 169:16, 173:9 successful [1] - 159:6 sudden [2] - 77:13, 237:5 suddenly [1] - 232:8 sued [2] - 175:25, 176:8 suffered [2] - 49:20, 76:6 suffers [1] - 76:2 sufficient [6] - 52:24, 56:25, 208:12, 233:15, 234:8, 234:14 sufficiently [1] - 206:16 suggest [3] - 165:10, 168:17, 170:25 suggested [2] - 48:2, 166:25 suggesting [2] - 83:9, 231:7 suggestion [1] - 83:13 suit [1] - 176:2 sum [1] - 54:22 summarize [2] - 34:3, 226:14 summarizes [1] - 31:10 Summary [1] - 2:8 summary [4] - 28:10, 31:7, 142:11, 211:7 summer [1] - 94:2 supplier [4] - 109:2, 177:14, 177:16, 212:13 supplying [1] - 78:14 support [2] - 68:24, 107:11 supported [2] - 47:16, 84:22 supporting [8] - 19:22, 19:25, 27:24, 48:5, 78:22, 112:21</p>	<p>133:4, 145:15 supports [2] - 36:20, 40:20 suppose [6] - 67:4, 114:20, 201:20, 210:3, 221:17, 232:7 supposed [3] - 118:6, 131:15, 257:4 surprise [1] - 108:23 surprised [1] - 257:9 survey [13] - 100:3, 100:4, 100:5, 100:6, 116:10, 116:18, 159:17, 168:10, 168:13, 169:19, 199:4, 219:24 survival [1] - 212:6 survive [1] - 173:6 Swan [1] - 257:13 swear [2] - 9:9, 198:3 switch [1] - 50:6 switching [1] - 52:8 synopsis [1] - 198:12 system [4] - 20:7, 20:9, 20:12, 20:18 System [1] - 41:6</p>	<p>65:24, 67:1, 67:5, 67:7, 67:12, 67:23, 68:11, 68:13, 68:19, 68:20, 68:22, 68:25, 69:3, 69:24, 72:25, 73:1, 74:5, 74:14, 75:5, 75:7, 99:23, 100:2, 100:11, 102:1, 102:2, 102:4, 102:7, 102:11, 103:3, 104:8, 104:11, 104:14, 107:20, 127:1, 216:10, 243:18 tenth [7] - 72:9, 75:3, 181:21, 185:2, 185:3, 186:10, 186:11 tents [1] - 87:10 term [13] - 36:24, 42:20, 51:4, 69:12, 99:23, 103:4,</p>	<p>104:11, 107:20, 126:20, 172:7, 194:15, 209:7, 210:21 terminal [1] - 45:21 terminated [1] - 223:9 terms [8] - 7:15, 13:13, 15:17, 22:17, 147:8, 158:23, 214:13, 225:14 test [18] - 89:16, 183:17, 206:14, 206:20, 206:21, 206:25, 207:10, 208:2, 208:3, 217:7, 217:12, 217:14, 227:12, 229:5, 229:9, 235:14, 238:5, 240:13 tested [2] - 122:22, 205:9 testified [23] - 48:13, 84:7, 110:8, 114:3, 118:2, 123:23, 126:7, 126:8, 189:7, 190:9, 190:23, 191:17, 193:2, 193:6, 227:6, 228:25, 235:18, 239:8, 241:17, 243:18, 246:13, 249:20, 251:17 testify [9] - 4:10, 59:4, 113:23, 124:5, 157:4, 220:10, 224:3, 250:6, 253:11 testifying [3] - 199:23, 225:5, 242:9 testimony [25] - 9:9, 11:12, 114:12, 124:25, 133:20, 193:9, 197:7, 198:3, 205:14, 205:15, 206:7, 213:9, 221:15, 222:24, 223:25, 224:1, 229:8, 232:12, 232:14, 234:21, 242:10, 248:21, 254:10, 258:3, 259:16 testing [19] - 65:9, 122:19, 122:21, 206:10, 207:22, 209:4, 209:10, 216:6, 217:22, 218:4, 226:17, 226:20, 226:22, 226:23, 226:25, 227:16, 227:25,</p>
--	--	---	---	--

235:2, 240:13 tests [8] - 206:14, 207:5, 234:14, 237:24, 238:11, 238:17, 252:4, 252:6 Texas [5] - 8:9, 52:10, 52:17, 160:25, 210:11 textbooks [1] - 81:13 that'll [1] - 250:2 THE [147] - 1:16, 3:2, 3:5, 3:15, 4:3, 4:6, 4:18, 4:25, 5:6, 5:12, 5:18, 6:1, 6:7, 6:11, 6:14, 6:17, 6:20, 6:24, 7:2, 7:9, 8:4, 9:1, 9:4, 9:8, 9:12, 9:13, 9:15, 9:16, 10:25, 11:5, 11:15, 19:7, 29:9, 29:13, 70:6, 70:13, 80:1, 80:4, 89:13, 105:19, 105:21, 119:19, 119:24, 120:4, 120:12, 120:15, 120:18, 120:24, 121:2, 121:6, 121:12, 121:24, 125:15, 142:3, 142:8, 142:12, 143:13, 143:16, 143:18, 143:21, 143:25, 144:4, 144:9, 144:11, 144:15, 144:21, 147:6, 147:12, 147:14, 147:20, 147:24, 148:4, 148:10, 148:17, 148:20, 148:24, 149:2, 149:6, 149:10, 152:6, 152:14, 188:1, 188:5, 188:7, 188:11, 188:13, 188:16, 194:23, 196:14, 196:16, 196:18, 196:19, 196:23, 197:1, 197:9, 197:19, 197:21, 198:1, 198:2, 198:6, 198:7, 198:8, 199:17, 200:22, 200:25, 218:2, 218:13, 218:16, 218:21, 219:4, 219:7, 219:11, 219:14, 219:15, 221:24, 222:2, 222:7, 223:6,	223:12, 223:22, 224:5, 224:12, 224:19, 225:1, 225:11, 226:10, 254:4, 254:9, 254:13, 254:15, 254:16, 254:18, 255:5, 255:9, 255:13, 255:20, 256:7, 256:10, 256:13, 256:19, 257:2, 257:18, 257:22, 258:4, 258:7, 260:6, 260:8 thee [1] - 259:12 themselves [5] - 17:5, 31:5, 119:12, 221:4, 237:25 theoretically [2] - 46:10, 150:8 theory [4] - 46:1, 71:18, 126:24, 240:17 there'll [1] - 246:15 therefore [7] - 17:20, 40:21, 46:24, 73:8, 126:25, 134:8, 169:16 they've [3] - 107:23, 205:8, 213:24 thin [1] - 159:13 thinking [6] - 146:3, 232:23, 245:13, 255:13, 255:20, 257:11 thinks [1] - 11:13 third [13] - 28:13, 29:4, 30:6, 44:19, 54:9, 56:8, 66:17, 70:19, 84:25, 155:8, 155:9, 171:1, 211:18 thoroughly [1] - 29:9 thousand [5] - 54:20, 156:13, 156:22, 156:23, 157:2 thousands [2] - 116:1, 201:14 three [62] - 11:25, 12:21, 20:24, 21:1, 22:2, 27:18, 31:25, 54:9, 54:11, 54:18, 54:24, 55:22, 56:9, 60:1, 61:20, 64:13, 73:3, 82:22, 82:25, 84:9, 85:21, 105:1, 106:18, 106:21, 123:17, 123:20,	123:24, 124:1, 124:4, 124:5, 124:7, 124:15, 124:16, 124:22, 125:6, 125:8, 125:10, 125:11, 125:15, 125:20, 125:24, 126:2, 126:6, 126:13, 126:22, 126:25, 127:2, 127:6, 127:11, 127:15, 127:19, 127:23, 128:1, 128:5, 128:9, 128:13, 128:17, 128:21, 128:25, 129:1, 129:5, 129:9, 129:13, 129:17, 129:21, 129:25, 130:1, 130:5, 130:9, 130:13, 130:17, 130:21, 130:25, 131:1, 131:5, 131:9, 131:13, 131:17, 131:21, 131:25, 132:1, 132:5, 132:9, 132:13, 132:17, 132:21, 132:25, 133:1, 133:5, 133:9, 133:13, 133:17, 133:21, 133:25, 134:1, 134:5, 134:9, 134:13, 134:17, 134:21, 134:25, 135:1, 135:5, 135:9, 135:13, 135:17, 135:21, 135:25, 136:1, 136:5, 136:9, 136:13, 136:17, 136:21, 136:25, 137:1, 137:5, 137:9, 137:13, 137:17, 137:21, 137:25, 138:1, 138:5, 138:9, 138:13, 138:17, 138:21, 138:25, 139:1, 139:5, 139:9, 139:13, 139:17, 139:21, 139:25, 140:1, 140:5, 140:9, 140:13, 140:17, 140:21, 140:25, 141:1, 141:5, 141:9, 141:13, 141:17, 141:21, 141:25, 142:1, 142:5, 142:9, 142:13, 142:17, 142:21, 142:25, 143:1, 143:5, 143:9, 143:13, 143:17, 143:21, 143:25, 144:1, 144:5, 144:9, 144:13, 144:17, 144:21, 144:25, 145:1, 145:5, 145:9, 145:13, 145:17, 145:21, 145:25, 146:1, 146:5, 146:9, 146:13, 146:17, 146:21, 146:25, 147:1, 147:5, 147:9, 147:13, 147:17, 147:21, 147:25, 148:1, 148:5, 148:9, 148:13, 148:17, 148:21, 148:25, 149:1, 149:5, 149:9, 149:13, 149:17, 149:21, 149:25, 150:1, 150:5, 150:9, 150:13, 150:17, 150:21, 150:25, 151:1, 151:5, 151:9, 151:13, 151:17, 151:21, 151:25, 152:1, 152:5, 152:9, 152:13, 152:17, 152:21, 152:25, 153:1, 153:5, 153:9, 153:13, 153:17, 153:21, 153:25, 154:1, 154:5, 154:9, 154:13, 154:17, 154:21, 154:25, 155:1, 155:5, 155:9, 155:13, 155:17, 155:21, 155:25, 156:1, 156:5, 156:9, 156:13, 156:17, 156:21, 156:25, 157:1, 157:5, 157:9, 157:13, 157:17, 157:21, 157:25, 158:1, 158:5, 158:9, 158:13, 158:17, 158:21, 158:25, 159:1, 159:5, 159:9, 159:13, 159:17, 159:21, 159:25, 160:1, 160:5, 160:9, 160:13, 160:17, 160:21, 160:25, 161:1, 161:5, 161:9, 161:13, 161:17, 161:21, 161:25, 162:1, 162:5, 162:9, 162:13, 162:17, 162:21, 162:25, 163:1, 163:5, 163:9, 163:13, 163:17, 163:21, 163:25, 164:1, 164:5, 164:9, 164:13, 164:17, 164:21, 164:25, 165:1, 165:5, 165:9, 165:13, 165:17, 165:21, 165:25, 166:1, 166:5, 166:9, 166:13, 166:17, 166:21, 166:25, 167:1, 167:5, 167:9, 167:13, 167:17, 167:21, 167:25, 168:1, 168:5, 168:9, 168:13, 168:17, 168:21, 168:25, 169:1, 169:5, 169:9, 169:13, 169:17, 169:21, 169:25, 170:1, 170:5, 170:9, 170:13, 170:17, 170:21, 170:25, 171:1, 171:5, 171:9, 171:13, 171:17, 171:21, 171:25, 172:1, 172:5, 172:9, 172:13, 172:17, 172:21, 172:25, 173:1, 173:5, 173:9, 173:13, 173:17, 173:21, 173:25, 174:1, 174:5, 174:9, 174:13, 174:17, 174:21, 174:25, 175:1, 175:5, 175:9, 175:13, 175:17, 175:21, 175:25, 176:1, 176:5, 176:9, 176:13, 176:17, 176:21, 176:25, 177:1, 177:5, 177:9, 177:13, 177:17, 177:21, 177:25, 178:1, 178:5, 178:9, 178:13, 178:17, 178:21, 178:25, 179:1, 179:5, 179:9, 179:13, 179:17, 179:21, 179:25, 180:1, 180:5, 180:9, 180:13, 180:17, 180:21, 180:25, 181:1, 181:5, 181:9, 181:13, 181:17, 181:21, 181:25, 182:1, 182:5, 182:9, 182:13, 182:17, 182:21, 182:25, 183:1, 183:5, 183:9, 183:13, 183:17, 183:21, 183:25, 184:1, 184:5, 184:9, 184:13, 184:17, 184:21, 184:25, 185:1, 185:5, 185:9, 185:13, 185:17, 185:21, 185:25, 186:1, 186:5, 186:9, 186:13, 186:17, 186:21, 186:25, 187:1, 187:5, 187:9, 187:13, 187:17, 187:21, 187:25, 188:1, 188:5, 188:9, 188:13, 188:17, 188:21, 188:25, 189:1, 189:5, 189:9, 189:13, 189:17, 189:21, 189:25, 190:1, 190:5, 190:9, 190:13, 190:17, 190:21, 190:25, 191:1, 191:5, 191:9, 191:13, 191:17, 191:21, 191:25, 192:1, 192:5, 192:9, 192:13, 192:17, 192:21, 192:25, 193:1, 193:5, 193:9, 193:13, 193:17, 193:21, 193:25, 194:1, 194:5, 194:9, 194:13, 194:17, 194:21, 194:25, 195:1, 195:5, 195:9, 195:13, 195:17, 195:21, 195:25, 196:1, 196:5, 196:9, 196:13, 196:17, 196:21, 196:25, 197:1, 197:5, 197:9, 197:13, 197:17, 197:21, 197:25, 198:1, 198:5, 198:9, 198:13, 198:17, 198:21, 198:25, 199:1, 199:5, 199:9, 199:13, 199:17, 199:21, 199:25, 200:1, 200:5, 200:9, 200:13, 200:17, 200:21, 200:25, 201:1, 201:5, 201:9, 201:13, 201:17, 201:21, 201:25, 202:1, 202:5, 202:9, 202:13, 202:17, 202:21, 202:25, 203:1, 203:5, 203:9, 203:13, 203:17, 203:21, 203:25, 204:1, 204:5, 204:9, 204:13, 204:17
---	--	---

<p>turnover [2] - 171:4, 175:20</p> <p>turns [2] - 98:21, 171:1</p> <p>twice [1] - 211:10</p> <p>two [96] - 4:14, 5:10, 10:10, 12:22, 18:20, 21:1, 25:4, 27:19, 30:14, 34:7, 34:12, 42:5, 43:7, 44:18, 49:5, 54:8, 54:11, 54:15, 54:19, 54:21, 55:2, 62:2, 62:13, 84:8, 84:10, 84:12, 89:3, 91:22, 94:1, 97:4, 99:7, 99:10, 103:25, 112:4, 117:16, 119:9, 119:10, 120:21, 123:5, 123:14, 129:8, 130:6, 130:17, 130:24, 131:6, 131:9, 131:11, 133:11, 135:15, 137:13, 139:1, 140:10, 141:23, 147:1, 150:20, 154:12, 154:15, 154:16, 155:12, 163:23, 171:1, 174:23, 174:25, 176:11, 184:14, 184:20, 185:1, 185:4, 201:10, 201:21, 202:5, 202:22, 211:3, 211:5, 211:17, 214:4, 214:15, 218:9, 223:14, 228:3, 228:6, 233:16, 235:7, 239:13, 239:17, 239:20, 242:3, 255:19, 256:21, 256:23, 257:5, 257:6</p> <p>two-dozen [1] - 30:14</p> <p>type [8] - 188:25, 200:5, 204:25, 209:6, 212:23, 235:2, 238:8, 247:17</p> <p>typed [1] - 95:4</p> <p>types [4] - 10:10, 111:8, 164:22, 246:5</p> <p>typical [3] - 39:13, 72:24, 201:15</p> <p>typically [4] - 46:8, 55:6, 62:23, 202:9</p>	U	<p>63:21, 64:2, 64:11, 65:6, 66:1, 66:5, 66:11, 66:18, 66:20, 66:24, 66:25, 69:24, 71:4, 71:5, 71:6, 75:2, 75:15, 123:20, 164:5, 164:10, 164:11, 164:20, 165:2, 165:7, 167:20, 170:9, 180:25, 181:13, 230:20</p> <p>unknown [1] - 166:4</p> <p>unless [7] - 10:23, 41:19, 104:14, 151:5, 183:20, 234:13, 235:1</p> <p>underestimated [1] - 245:15</p> <p>underestimating [2] - 244:9, 246:10</p> <p>undergraduate [1] - 80:13</p> <p>underneath [3] - 63:20, 63:22, 167:5</p> <p>understood [3] - 215:20, 227:11, 229:25</p> <p>unemployed [1] - 35:4</p> <p>unemployment [5] - 210:5, 210:6, 210:11, 210:17, 227:15</p> <p>uniform [6] - 55:7, 62:16, 63:18, 66:10, 208:1, 208:5</p> <p>uniformed [1] - 55:4</p> <p>unit [46] - 18:14, 19:7, 19:8, 19:12, 19:16, 19:18, 34:4, 47:7, 60:19, 61:15, 61:18, 61:24, 62:7, 62:13, 66:3, 66:5, 66:12, 66:17, 70:17, 70:18, 70:20, 70:21, 71:14, 71:16, 71:23, 71:24, 72:1, 72:3, 74:22, 75:13, 75:15, 75:18, 94:8, 118:7, 122:25, 128:20, 128:25, 181:2, 181:7, 181:17, 181:18, 183:14</p> <p>UNITED [1] - 1:1</p> <p>United [6] - 1:16, 1:17, 35:15, 210:6, 210:17, 260:17</p> <p>units [45] - 18:11, 21:2, 21:15, 23:2, 47:6, 47:18, 49:3, 57:6, 57:25, 59:14, 60:16, 62:13, 63:20,</p>	<p>63:21, 64:2, 64:11, 65:6, 66:1, 66:5, 66:11, 66:18, 66:20, 66:24, 66:25, 69:24, 71:4, 71:5, 71:6, 75:2, 75:15, 123:20, 164:5, 164:10, 164:11, 164:20, 165:2, 165:7, 167:20, 170:9, 180:25, 181:13, 230:20</p> <p>unknown [1] - 166:4</p> <p>unless [7] - 10:23, 41:19, 104:14, 151:5, 183:20, 234:13, 235:1</p> <p>underestimated [1] - 245:15</p> <p>underestimating [2] - 244:9, 246:10</p> <p>undergraduate [1] - 80:13</p> <p>underneath [3] - 63:20, 63:22, 167:5</p> <p>understood [3] - 215:20, 227:11, 229:25</p> <p>unemployed [1] - 35:4</p> <p>unemployment [5] - 210:5, 210:6, 210:11, 210:17, 227:15</p> <p>uniform [6] - 55:7, 62:16, 63:18, 66:10, 208:1, 208:5</p> <p>uniformed [1] - 55:4</p> <p>unit [46] - 18:14, 19:7, 19:8, 19:12, 19:16, 19:18, 34:4, 47:7, 60:19, 61:15, 61:18, 61:24, 62:7, 62:13, 66:3, 66:5, 66:12, 66:17, 70:17, 70:18, 70:20, 70:21, 71:14, 71:16, 71:23, 71:24, 72:1, 72:3, 74:22, 75:13, 75:15, 75:18, 94:8, 118:7, 122:25, 128:20, 128:25, 181:2, 181:7, 181:17, 181:18, 183:14</p> <p>UNITED [1] - 1:1</p> <p>United [6] - 1:16, 1:17, 35:15, 210:6, 210:17, 260:17</p> <p>units [45] - 18:11, 21:2, 21:15, 23:2, 47:6, 47:18, 49:3, 57:6, 57:25, 59:14, 60:16, 62:13, 63:20,</p>	V	<p>valid [2] - 165:22, 200:23</p> <p>validity [1] - 221:3</p> <p>valuation [6] - 37:15, 39:8, 40:8, 83:2, 92:11, 189:20</p> <p>valuations [2] - 82:13, 199:21</p> <p>value [26] - 9:25, 18:7, 34:8, 34:9, 34:14, 35:1, 38:14, 40:24, 42:14, 42:17, 42:18, 42:19, 42:20, 44:22, 44:24, 45:9, 45:10, 45:13, 45:21, 76:5, 126:13, 149:19, 166:10, 205:11, 233:12, 239:17</p> <p>valued [1] - 39:11</p> <p>values [3] - 178:11, 204:24, 208:22</p> <p>valuing [2] - 45:14, 126:17</p> <p>variabilities [1] - 216:15</p> <p>variability [33] - 22:21, 25:19, 25:22, 25:23, 72:23, 90:20, 203:2, 209:22, 209:25, 210:2, 210:8, 210:9, 210:17, 213:11, 214:19, 215:8, 217:8, 233:21, 233:22, 239:5, 244:8, 244:24, 244:25, 245:3, 245:11, 245:15, 245:20, 246:10, 248:2, 249:5, 249:13, 249:21, 253:6</p> <p>variable [13] - 32:10, 32:13, 32:14, 32:19, 32:21, 33:25, 73:15, 73:24, 167:6, 209:19, 216:16, 244:10, 246:2</p> <p>variables [2] - 183:21, 184:1</p> <p>variation [3] - 118:4, 118:5, 118:9</p> <p>varied [4] - 225:19, 259:9, 259:10</p> <p>varies [1] - 245:13</p> <p>variety [4] - 200:17, 203:22, 204:5, 205:2</p> <p>various [6] - 12:5, 14:22, 20:10, 27:15, 38:22, 50:14</p> <p>vary [4] - 204:5, 213:10, 214:18, 249:7</p> <p>varying [1] - 234:3</p> <p>venture [1] - 39:22</p> <p>Ventures [1] - 84:13</p> <p>verification [2] - 218:2, 218:3</p> <p>verify [2] - 23:9, 24:5</p> <p>verifying [1] - 195:20</p> <p>versed [1] - 260:10</p> <p>version [5] - 41:15, 95:13, 190:18, 194:16, 194:17</p> <p>versions [1] - 95:10</p>
--	----------	---	---	----------	---

versus [9] - 1:7, 3:6, 84:13, 91:24, 164:11, 175:20, 176:10, 251:13, 254:21	150:5, 150:14, 153:24, 154:9, 164:15, 165:10	231:6, 231:21, 232:4, 232:7, 233:9	100:11, 102:4, 102:7, 102:11, 103:3, 104:8, 104:11, 104:14, 107:20, 127:1, 159:16, 167:8, 167:20, 170:19, 172:11, 177:2, 181:8, 181:21, 181:23, 182:5, 183:9, 185:2, 185:3, 186:4, 186:10, 186:11, 186:17, 187:20, 211:11, 211:14, 211:15, 211:16, 211:17, 211:18, 211:23, 211:24, 213:24, 214:3, 215:2, 215:5, 216:10, 221:20, 222:3, 222:14, 222:15, 223:13, 223:14, 223:16, 229:1, 235:19, 236:2, 236:11, 243:3, 243:18, 246:14, 252:19, 252:20	200:3, 211:10, 213:5, 213:7, 214:4, 214:25, 215:6, 222:4, 222:23, 222:25, 224:14, 224:25, 229:2, 236:1, 243:2, 244:13, 247:24, 248:19, 248:24, 249:4, 249:7, 252:24
via [1] - 220:1	well-versed [1] - 260:10	worse [3] - 208:20, 208:25, 216:2	worst [22] - 57:20, 57:21, 58:1, 59:16, 59:18, 60:3, 60:15, 60:18, 61:3, 61:7, 61:23, 61:25, 62:6, 63:1, 64:11, 68:3, 177:15, 178:21, 227:4, 227:16, 228:2, 231:1	yesterday [1] - 83:7
video [1] - 12:14	whack [1] - 27:7	whole [11] - 9:10, 55:10, 120:10, 120:23, 121:9, 178:3, 198:4, 217:15, 224:1, 248:4	worst-case [16] - 57:20, 57:21, 58:1, 59:16, 60:3, 60:15, 60:18, 61:3, 61:7, 63:1, 64:11, 68:3, 177:15, 178:21, 227:4, 231:1	York [1] - 210:12
viewed [3] - 12:14, 126:8, 126:20	whereas [1] - 74:1	wife [2] - 5:17, 219:16	wound [1] - 138:19	yourself [5] - 9:21, 23:9, 55:20, 152:6, 220:11
violates [3] - 216:13, 217:11, 217:15	whoa [1] - 107:1	Wiley [1] - 82:23	wrap [1] - 17:3	Z
visually [1] - 207:9	whole [11] - 9:10, 55:10, 120:10, 120:23, 121:9, 178:3, 198:4, 217:15, 224:1, 248:4	wince [1] - 4:21	wrapped [1] - 19:17	zero [10] - 11:12, 63:12, 72:7, 214:10, 231:18, 231:22, 231:23, 232:1, 232:2
vitae [1] - 11:6	wide [2] - 203:6, 205:2	wind [2] - 82:10, 213:15	wrapping [1] - 194:15	
volume [7] - 57:10, 155:23, 157:8, 163:4, 163:8, 165:25, 166:2	widgets [1] - 21:22	window [2] - 214:16, 241:18	write [2] - 83:14, 96:14	
Volume [1] - 1:7	wife [2] - 5:17, 219:16	wise [1] - 7:22	writing [2] - 83:17, 190:13	
voracity [1] - 248:2	Wiley [1] - 82:23	witch [2] - 259:3, 260:1	written [6] - 95:4, 96:10, 101:3, 158:17, 192:6, 252:15	
vulnerability [1] - 36:13	wince [1] - 4:21	withdraw [1] - 83:23	wrongful [1] - 34:24	
vulnerable [1] - 38:20	wind [2] - 82:10, 213:15	withdrawing [1] - 252:8	wrote [5] - 81:8, 102:3, 102:8, 102:23, 200:18	
W				
wait [5] - 98:10, 100:7, 123:6, 129:22, 147:1	window [2] - 214:16, 241:18	withdrawn [3] - 252:10, 252:13, 252:14	X	
waiting [2] - 133:1, 133:3	wise [1] - 7:22	WITNESS [8] - 9:12, 9:15, 196:18, 198:6, 198:8, 219:15, 254:13, 254:16	XLSim [3] - 54:1, 155:15, 231:13	
wandering [1] - 207:16	witch [2] - 259:3, 260:1	Witness [2] - 2:1, 2:15	Y	
wants [2] - 6:3, 174:6	withdraw [1] - 83:23	witness [2] - 5:20, 7:18	yardstick [1] - 15:16	
Washington [1] - 84:13	withdrawing [1] - 252:8	witnesses [4] - 4:13, 149:3, 224:2, 225:9	year [109] - 14:13, 22:11, 30:20, 34:16, 34:18, 38:3, 38:7, 44:23, 44:25, 45:3, 46:17, 48:18, 49:6, 51:7, 51:10, 61:19, 63:21, 63:22, 63:23, 63:25, 64:1, 64:8, 64:10, 64:16, 64:20, 65:3, 65:4, 65:18, 66:1, 66:18, 66:19, 66:20, 67:6, 67:9, 71:9, 72:5, 72:6, 72:9, 74:5, 75:3, 85:4, 85:11, 85:16, 93:24, 99:23, 100:2,	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,
watch [1] - 23:6	written [6] - 95:4, 96:10, 101:3, 158:17, 192:6, 252:15	witness [2] - 5:20, 7:18	year-end [1] - 30:20	
watched [6] - 23:13, 23:15, 23:16, 93:13, 122:18	wrongful [1] - 34:24	witnesses [4] - 4:13, 149:3, 224:2, 225:9	years [97] - 17:13, 18:13, 35:8, 35:9, 39:12, 45:6, 46:2, 46:3, 46:8, 46:12, 46:15, 46:17, 46:20, 47:2, 47:7, 53:9, 53:22, 64:22, 65:24, 67:1, 67:12, 67:23, 68:11, 69:3, 69:11, 69:24, 71:19, 74:14, 74:18, 74:19, 75:5, 75:7, 78:7, 78:10, 92:19, 92:21, 101:22, 102:1, 102:2, 102:4, 102:6, 102:9, 102:10, 103:10, 103:19, 105:5, 106:18, 106:21, 108:14, 109:13, 118:20, 118:21, 126:3, 126:20, 127:2, 151:8, 154:15, 154:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
watching [3] - 12:3, 23:13, 90:3	works [6] - 37:10, 82:12, 144:20, 147:13, 189:2, 237:13	worksheets [1] - 2:7	yardstick [1] - 15:16	
Waterhouse [2] - 200:1, 204:21	worksheets [6] - 37:10, 82:12, 144:20, 147:13, 189:2, 237:13	worksheet [1] - 2:7	year [109] - 14:13, 22:11, 30:20, 34:16, 34:18, 38:3, 38:7, 44:23, 44:25, 45:3, 46:17, 48:18, 49:6, 51:7, 51:10, 61:19, 63:21, 63:22, 63:23, 63:25, 64:1, 64:8, 64:10, 64:16, 64:20, 65:3, 65:4, 65:18, 66:1, 66:18, 66:19, 66:20, 67:6, 67:9, 71:9, 72:5, 72:6, 72:9, 74:5, 75:3, 85:4, 85:11, 85:16, 93:24, 99:23, 100:2,	
ways [1] - 215:14	worksheets [1] - 31:8	world [12] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
wear [1] - 74:19	worldsheet [6] - 27:23, 27:24, 28:24, 28:25, 122:9, 122:10	worldsheet [1] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
website [1] - 12:14	worksheets [1] - 31:8	worldsheet [1] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
websites [1] - 168:3	worksheets [1] - 31:8	worldsheet [1] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
week [4] - 5:8, 93:22, 113:12, 150:11	worksheets [1] - 31:8	worldsheet [1] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
weeks [5] - 4:16, 5:10, 93:24, 94:1, 113:15	worksheets [1] - 31:8	worldsheet [1] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
weighs [1] - 258:11	worksheets [1] - 31:8	worldsheet [1] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	
weighted [28] - 36:17, 36:25, 40:11, 40:15, 40:17, 40:21, 41:18, 41:23, 43:2, 43:5, 43:6, 44:20, 44:24, 64:15, 76:2, 86:2, 86:24, 141:4, 141:16, 149:14, 149:16, 149:21	worksheets [1] - 31:8	worldsheet [1] - 14:22, 58:11, 230:19, 231:2, 231:3, 231:5	yardstick [1] - 15:16, 154:18, 154:19, 154:20, 154:21, 154:22, 155:12, 156:8, 167:4, 167:5, 167:21, 167:22, 171:2, 171:25, 172:14, 187:22,	